After 100 Years, FOSSIL CREEK Will Flow WILD and FREE

arizonahighways.com JUNE 2004

ARIZONA HIGHWAYS

RARELY SEEN BEAUTY
SCULPTED SANDSTONE

KAYAKERS
Go Overboard on Apache Lake

Indian Arts Showplace
HEARD MUSEUM
Marking Its 75th Year

A Survival Struggle
FLIGHT OF THE CONDORS

ARIZONA HIGHWAYS
JUNE 2004

[THIS PAGE] The action of water and windblown sand has worked the geology of the Colorado Plateau and continues the evolution of fanciful formations like Monument Valley's Three Sisters in Arizona's northeastern corner. [FRONT COVER] A hiker descends a slope of swirling sandstone, the accumulation of ancient dunes in the Coyote Buttes area of the Paria Canyon-Vermilion Cliffs Wilderness, about 40 miles west of Page near the Arizona-Utah border. For more photographs of the region's unique landscape, see the portfolio beginning on page 22. BOTH BY RALPH LEE HOPKINS [BACK COVER] A giant cottonwood tree clings precariously to the banks of Fossil Creek along the channel's course. See story, page 6. NICK BEREZENKO

{also inside}

POINTS OF INTEREST FEATURED IN THIS ISSUE

{more stories online}
at arizonahighways.com

{arizona highways on television}

Watch for this independently produced television show that emulates *Arizona Highways* magazine. The weekly half-hour show will air in Phoenix, Tucson and Flagstaff in both English and Spanish.

Robin Sewell, a veteran television news anchor and reporter, will host the show.

English show times: 6:30 P.M. Saturdays on Channel 12 in Phoenix and on Channel 2 in Flagstaff, and at 4:30 P.M. Sundays on Channel 9 in Tucson.

The show will air in Spanish on Channel 33 in Phoenix, Channel 52 in Tucson and Channel 13 in Flagstaff. Check the stations' listings for times.

Gene Perret Column

I've received my January 2004 issue, and it tells me that "Gene Perret's Wit Stop" is online now and no longer in the magazine. I have to say that I feel sorry for the people who enjoy him but do not have access to a computer. Can you find room to put him back in the magazine please?

Joan Wactor, Oakland, CA

My secondary pleasure in reading involves my accommodations. The perfect chair, excellent lighting and pillows arranged just right.

I was in my favorite chair when I eagerly opened to January's contents to find the page for "Wit Stop." I've already forgiven you a long time ago for moving it to the back of the magazine. So you see, it really didn't faze me when I couldn't find a page number listed for my favorite section. I just went thumbing through the magazine. There was no article. It was "online." You might as well have sent it to Mars.

What were you thinking?

Now, I have to sit on my husband's miserable desk chair surrounded by clutter only a low-yield nuclear device could clear, to say nothing of the lousy lighting, just to read a great story on a screen.

Put it back the way it was.

By the way, I do like the magazine's new font style. It is easier on the eyes when I read what's left of the magazine.

Deirdra Marsh, Edison, NJ

"Gene Perret's Wit Stop" has a huge following, we know. By putting him exclusively on our Web site, we will run two of his columns each month instead of one.

Wildlife Refuges

As author of the recently published *America's National Wildlife Refuges: A Complete Guide*, my thanks to Lori K. Baker for her wonderful descriptions of Cibola and Imperial national wildlife refuges ("Wild Refuges," January '04). The two accompanying portraits of snowy egrets by Tom Vezo are among the most magnificent wildlife photographs I've ever seen.

Russ Butcher, Tucson

In the story on wild refuges, Lori K. Baker writes that geese fly in a V formation to save energy. I also enlighten folks with that answer, which usually draws another question: "Why is there almost always one wing of the V longer than the other?" And the answer: because there are more geese in it.

Norman B. Evans, Minoa, NY

The poor old editor loves readers with a sense of humor.

Lost Legends

I recently subscribed to *Arizona Highways* after an absence of several years and am enjoying the magazine. However, issues in the past always contained "Legends of the Lost," which were stories, most from before the turn of the 20th century, that related both the history and the mystery of the Southwest. I was disappointed to see that this feature has apparently been discontinued. Would you please consider reviving "Legends of the Lost" — even as reprints from issues long in the past?

Bill Swaby, Unionville, IA

Later this year, we plan to run a special section of lost-treasure stories. We've finally found some new ones.

Contented Visitor

I saw my first *Arizona Highways* in a country school in rural Iowa in the early 1950s. I just love the history and beautiful scenery that Arizona affords. I'm in my second year as a snowbird, and look forward to many more. Every week is a new road trip and breathtaking adventure.

Dennis Burrier, Cedar Rapids, IA

Great Gift

We recently gave *Arizona Highways* to a co-worker who lives in St. Louis. Wanted to let you know it was very well received.

Sandra Turner, Gilbert

About 100,000 persons give Arizona Highways *subscriptions as well-received gifts. As a matter of fact,* Arizona Highways *has more subscribers outside Arizona than inside because once people outside the state see the magazine, they become confirmed readers.*

Environmental Artist

What a surprise and joy we felt to find a full-page story on our "ol' friend" George Brucha ("There's Fine Art in Nothing If You Look in the Right Place," "Along the Way," January '04). We have spent many hours visiting him and his beloved dogs. We treasure our Brucha paintings and wood carvings. George is a gentleman and a true environmentalist and deserves much recognition.

Edgar and Lola Warner, Davis, OK

Good Issue

The January 2004 edition is the most beautiful yet.

Daniel E. Kelleher, Gilbert

Longshot Meeting

Upon retirement, we moved to a small town in the middle of England. We return occasionally to Arizona to visit family and favorite places. We met a young man at the Grand Canyon on our last visit there. He told us he came all the way from England just to see the Grand Canyon and mentioned where he was from. He lives down the street from us.

Donna Lynde, Nottinghamshire, England

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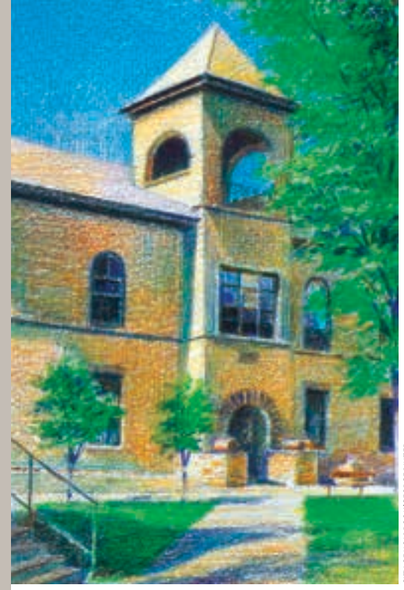


CITY OF HOLBROOK/GEORGE PINTER

From Courthouse to Museum

Built in 1898, the Navajo County Historical Courthouse in Holbrook held court until 1976. Now it's the home of the Old West Museum with collections ranging from petrified wood and ancient Indian pottery to a telephone switchboard.

Old dishes, quilts and toys share space with a chuck box, Navajo rugs, saddles and a parlor organ. Paintings by local artist Garnett Franklin explain Holbrook's history, including gunfights, railroads, cattle companies and Navajo Indians.

The jail is a special attraction. Costing $3,000, it was built in St. Louis when the courthouse was in the planning, shipped by rail, then installed during courthouse construction. Made of steel painted green, it features narrow bunks, gunports, catwalks and a drunk tank complete with prisoner's wall sketches. It's somber enough to deter a life of crime.

During the weekday evenings of June and July, Navajo dancers perform outside the courthouse.

Information: (928) 524-2459; www.ci.holbrook.az.us.

EDWARD MC CAIN

Farmers' Market in the Plaza

There are farmers' markets, and then there are farmers' markets, but there are none classier than the Tucson Farmers' Market in St. Philip's Plaza.

For nearly six years, leisurely Sunday morning shoppers have strolled through the market's elegant Spanish-adobe setting, choosing fresh fruits and vegetables to the accompaniment of music from local groups.

Manish Shah, who runs Maya Tea Co., charges vendors $25 per table at the market and runs a tight ship. "The market offers products of the soil," he says. "Everything is food and plant related." He started with seven vendors the first year and now averages between 25 and 30, depending on the season. Displays include vine-ripened tomatoes, bags of flavored peanuts, goat's milk, green and yellow melons, farm-fresh eggs and more. On Sunday mornings, the Tucson Farmer's Market at St. Philip's Plaza is located across the street from St. Philip's in the Hills Church at River Road and Campbell Avenue.

Information: (520) 793-8344.

Speed Demons

The *Arizona Republican* supplied the trophy, the speedsters supplied the cars and the great race from Los Angeles to Phoenix began. Among the Cactus Derby entries leaving Los Angeles at midnight on November 7, 1908, were a Kissel Kar, an Elmore, a Franklin and a White Steamer.

LINDA LONGMIRE

They fought off cattle and sand pits, and the cars lost or broke various parts. As winner, the White Steamer took the trophy with a time of slightly more than 30 hours. The driver, Col. F.C. Fenner, pronounced the passage between Mecca, California, and Buckeye, Arizona, as "the worst roads in the United States."

Picking bugs off their teeth and sand out of their eyes, drivers made the race an annual event until the last running in 1914 (winning time: 23 hours). That trip can now be made in about six hours, but today nobody lines the streets and applauds when drivers barrel through their towns and cities. That would require, as it did before, nothing less than a White Steamer.

THIS MONTH IN ARIZONA

1853 In the first **steamboat disaster** on the Colorado River, the ***Uncle Sam* sinks** near Fort Yuma.

1871 **Gen. George Crook** takes command of the Army's Department of Arizona. He says **Indians should be treated fairly**, but **kept under control**.

1874 Chiricahua Apache chief **Cochise dies** in the Dragoon Mountains, his tribe's stronghold. The **location of his burial** was **never disclosed** to non-Apaches.

1879 An executive order establishes the **Salt River Indian Reservation** for the Pima and Maricopa Indians and defines its southern boundary as **"up and along the middle of the river."**

1881 Thirty thousand pounds of **gunpowder explode** in a powder magazine on the edge of Tucson, **smashing windows** and dishes and **damaging buildings across town**.

1894 The town of **Flagstaff** is **incorporated**.

LINDA LONGMIRE

Quartzsite Vendor

The *Yuma Examiner* of January 3, 1910, mentioned that Anton Hagely told the story about a peddler who was required to fill out an application to do business in Quartzsite.

The gentleman in question was an entrepreneur who sold items from a pack on his back, and apparently didn't make a whole lot of money this way.

Here is what he wrote:
Name: Michael Levinsky
Born: Yes
Business: Rotten

Tempe Tea and Cake, Too

"Delicious Cakes, Pies, Rolls, Buns, Coffee Cake, and Doughnuts, like your mother used to make" proclaimed the signage in front of the 1888 Tempe Bakery that sold fresh baked goodies to Tempe's early residents. Located at 95 W. Fourth St., just west of Mill Avenue in downtown, this turn-of-the-last-century structure is known as Hackett House today and serves as headquarters for the nonprofit Tempe Sister Cities Corp. and its gift shop.

The building ranks as the oldest, fired-red-brick commercial building in Tempe. According to city of Tempe staff, it possesses the most original integrity of location, design, setting, materials, workmanship, feeling and association of any Territorial commercial building in Maricopa County. It contains the original interior walls, bakery shelves, counters and display window.

LINDA LONGMIRE

The bakery later became a residence for the Hacketts, and family members occupied the home until 1970. In 1974 the city of Tempe purchased the property as part of a redevelopment project, and that same year it was nominated for a place on the National Register of Historic Places. Hackett House was restored to its appearance at the time of Arizona's statehood in 1912, and Tempe Sister Cities was given use of the historic home as its headquarters in 1986.

Today the old bakery shop brims with activity, as home to an international cooking school, afternoon teas, children's programs and festivals, and it's available for free tours. Hackett House projects support the Tempe Sister Cities organization in promoting community interest in the people of other countries and cultures.

Information: (480) 350-8181 or www.tempe.gov/sister.

LIFE IN ARIZONA 1920s

The Frog Man Keeps Salome Hopping

Salome, a town on State Route 60 west of Phoenix, lies in an agricultural area. However, cows and pigs aren't the most important animals there. Frogs are the town's stock in trade.

A fictional frog that couldn't swim was a character in a story told by Dick Wick Hall, the mining promoter who also operated the Laughing Gas Station in Salome. (Chances are the frog in the story wasn't a frog, but rather a Colorado River toad — found in the area especially after rains.)

Hall entertained hot, tired travelers in the days before air conditioning, when automobile travel was an extreme adventure, with his paper the *Salome Sun*, which he claimed was "Made With A Laugh On A Mimeograph."

His humor brought him the success that had previously eluded him, for it is said that one day the editor of *The Saturday Evening Post*, George Horace Lorimer, stopped by and was impressed by the funnyman-gas station proprietor, and that's how Hall started writing a column for the prestigious *Post*.

CLAUDE GEORGE "PUT" PUTNAM, *SALOME SUN*, CIRCA 1920

Although the Laughing Gas Station long ago rejoined the earth, Hall's influence remains in Salome. The high-school teams are named the Frogs, and frogs adorn several public places. Hall's grave and monument are surrounded by a fence on the north side of the railroad tracks.

In 1926 Hall literally and figuratively "went West," as they said about people who died in those days. He went to Los Angeles to have some dental work done, and while he was there it was discovered that he had Bright's Disease, and so he cashed in his chips in the City of the Angels.

Not much has changed in Salome since Hall lived there, except that the section of Interstate 10 between Blythe and Phoenix took away the through-traffic into town. Summers are hot and good jobs are hard to find, but people stay on. Perhaps they remain because of the meaning of a sign that says: "SALOME IS HEAVEN TO US — DON'T DRIVE LIKE HELL THROUGH IT."

LINDA LONGMIRE

Stout's, That Apple Place

Those who cannot remember the name just call it "That Apple Place in Arizona," but they never forget the delicious deep-dish pies thick with 10 pounds of fresh apples. Ron and Corinne Stout, with their daughter Robin, manage their orchards of 10,000 apple trees representing 18 varieties. The family operates Stout's Cider Mill in Willcox, where they sell their homemade delights.

In addition to apple pies and ciders, they also sell apricot, peach, pear and cherry preserves and gift merchandise. Best of all, their food contains no preservatives.

Every week the Stouts load their van and hit the road to offer their products throughout Arizona and New Mexico. To find out when they will be in your area, go to http://www.cidermill.com.

Information: (520) 384-3696.

A Wall of World Friendship

The simple medium of clay has forged a strong friendship between Arizona and people from around the world. Tangible proof of that bond exists in the Friendship Wall in the ceramic studio on the campus of Northern Arizona University in Flagstaff.

Mounted on the Bendel Gallery walls are nearly 200 ceramic tiles, made by people in Japan and from other countries and states, too.

The Friendship Wall was the brainchild of Don Bendel, who taught ceramics at the university for more than 30 years. It started with a single tile, given to Bendel by Koichi Sawada of Himeji, Japan. (Himeji, coincidentally, is a sister city of Phoenix.)

The tile is a reproduction of one from a castle that survived World War II. Painted on it is a butterfly, the symbol of a 16th-century shogun. The tile had been in Sawada's garden for almost 40 years, but he gave it to Bendel, saying, "We're friends and I want you to have this." That's when "it kind of dawned on me that I should do the wall," Bendel said.

ALL PHOTOS BY DON BENDEL

He invited contributions from all over the world, including more from Japan and others from Estonia, Africa, Denmark and Russia. Some came from famous potters, others from young children. The only requirement was that each tile be 1-foot-square. Designs include leaping fish, trees, cups, a cat, a Volkswagen Beetle, faces, hands and poetry. And like true friendships, the wall is growing, with new tiles being added each year.

The ceramic studio and the gallery are located in the Tozan Educational Facility south of the NAU Skydome, on Lone Tree Road.

Information: (928) 523-1027.

There's Still a Great Escape at Papago Park

No doubt the 25 German Navy officers who escaped from the World War II prisoner of war camp in Papago Park in Phoenix did what they had to do at the time — not that their U-boat experience did the POWs any good in the sandy riverbeds of Arizona's desert. Capture quickly followed the greatest prisoner of war escape on U.S. soil.

RICHARD MAACK

Today visitors escape to the 1,200-acre Papago Park, which is home to the Phoenix Zoo, a fire museum, fishing lagoons and a botanical garden. The park lures beginning to experienced hikers and bicyclists to its trails and to Hole-In-The-Rock, a natural geological formation in the terra-cotta-hued buttes located in the center of the Phoenix valley. If you'd rather picnic than clamber along the park's smooth hills, there are plenty of ramadas, tables and grills for those escaping exertion.

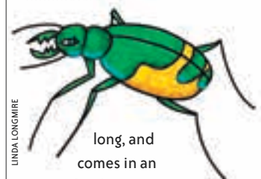
The 18-hole Papago Golf Course, Papago archery range and softball complex are nearby. You'll need an urban fishing license, though, if you plan to fish the lagoons for stocked trout in winter or catfish in summer.

Information: phoenix.gov/parks/hikepapa.html and www.arizonensis.org/sonoran/places/papago.html.

Question of the Month

Q What is one of the tiniest, yet fiercest **predators** in the state?

A Arizona claims 36 different species of **tiger beetle** (family *Cicindelidae*). This tiny dynamo can grow to 25 millimeters long, and comes in an array of styles — from classic black to metallic green, brown, maroon, purple, sometimes even sporting stripes or spots.



LINDA LONGMIRE

Gifted with the **ability to outrun its prey**, the tiger beetle **crushes** the unlucky insect in its sicklelike jaws, **shreds** it, and then **liquefies** it with digestive juices from its mouth. The predigested insect is then rolled into a gooey meatball and consumed.

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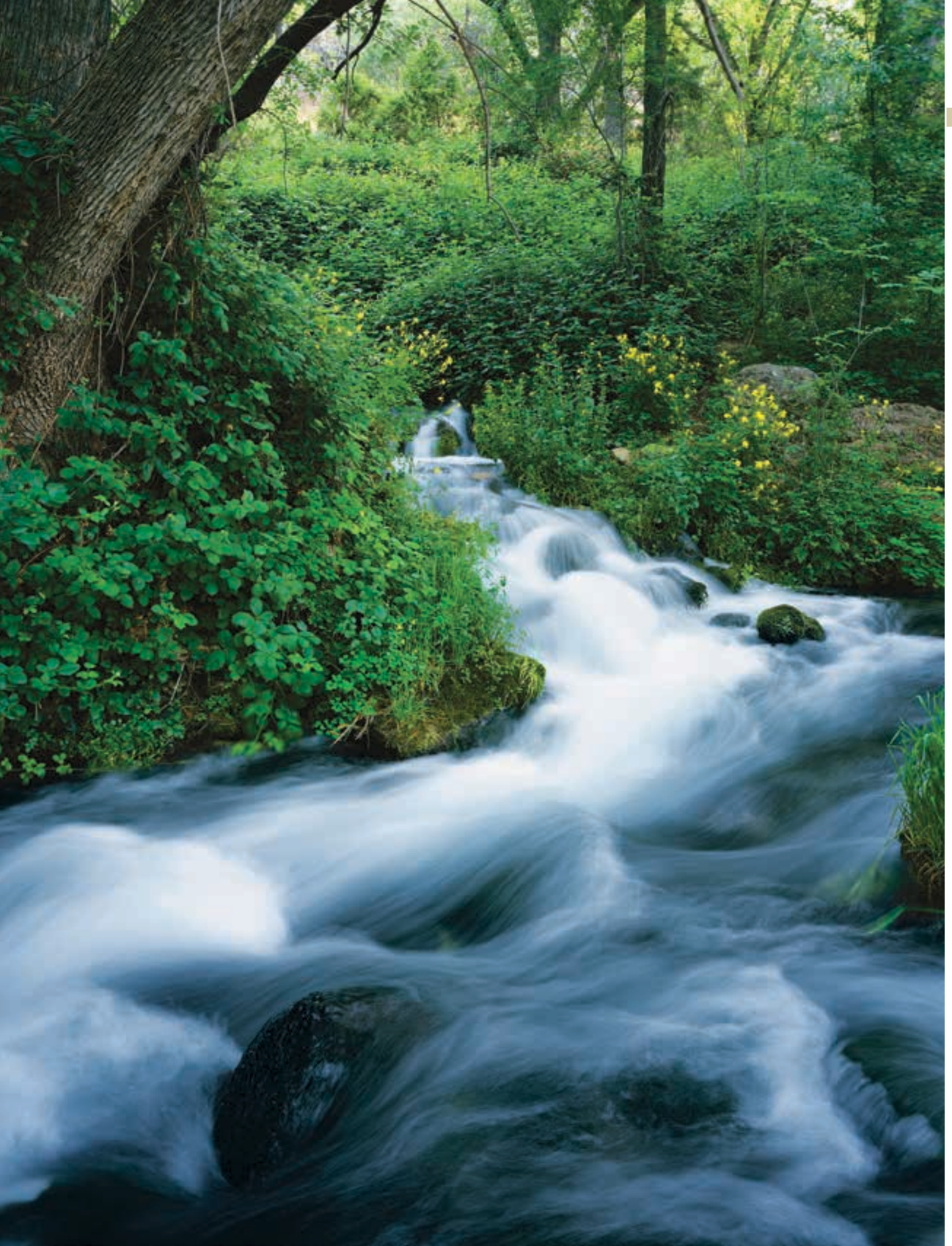
RETURN TO THE WILD

After almost 100 years, the travertine pools and waterfalls will return to Fossil Creek as two power plants are decommissioned

Text by MYNDI BROGDON
Photographs by NICK BEREZENKO



In the wilds of central Arizona, an unusual event is about to take place. Starting in about six months, nearly a hundred years of history will be reversed as an electrical generation marvel gets dismantled and a natural treasure gains new life.

Arizona Public Service will stop operation of the Childs and Irving hydroelectric power plants, and all the water used to run the plants will be allowed to flow naturally again in Fossil Creek.

The restoration seems as much a quirk of fate as Fossil Creek itself — as surprising and unexpected a stream as you could hope to find — but it also marks a change in society's attitude about what constitutes progress. Today, in this instance, the rare commodity of wilderness has a higher value than the need for the electricity that these plants produce.

Some will rejoice when Fossil Creek runs wild again, but some will feel sadness and regret for the loss of what man was able to accomplish here — the building of Arizona's first hydroelectric plant in a rough-and-tumble wilderness in the early 1900s. The human tales of triumph and failure are what endear the two tiny power plants to so many.

"It is amazing what they had to work with and what they accomplished," said Mike Stewart, the current manager of the Irving plant who will oversee the dismantling of the almost 100-year-old buildings and equipment.

"Being remote and being in the mountains — the terrain and country that this plant is in — when you think about the actual engineering that went into this place, it is amazing for its time," Stewart said.

The fact that the plants were built in such unlikely country is miracle enough, but how they came to be built is as unique a story as the plants themselves.

Charles Lummis, a brash promoter of the Southwest, was journeying through central Arizona in 1891. "On the road from Camp Verde to the Tonto Natural Bridge," he later wrote, "this trail crosses the tremendous gorge of Fossil Creek — down and up pitches that try the best legs and lungs. Where the trail crosses the canyon there is no running water, but a few hundred yards farther down are the great springs.

"Like hundreds of other springs in the Southwest," he continued, "they are so impregnated with minerals that they are constantly building great round basins for themselves and for a long distance flow down over bowl after bowl. But unlike other springs, those of Fossil Creek build their basins of what seems crude Mexican onyx. The fact that these waters quickly coat twigs or other articles with layers of this beautiful mineral gives rise to the name of Fossil."

Lummis' report went largely unnoticed. Then in 1897, Lew Turner, a Yavapai cattleman in search of water for his livestock, rediscovered the springs. Turner immediately envisioned the practical possibilities of so great a flow of water. He contacted electrical pioneers who were looking for a way to generate power for the booming copper camp at Jerome. They were impressed by the creek's drop in elevation of 1,600 feet over 10 miles and believed the water could be harnessed. But before the investors would commit to the project, they sent an engineer to gauge the stream's flow.

Readings were taken daily for more than two years, at which time the gauger gave up in disgust. He said the same figures had repeated three times a day throughout the entire time, proving that the springs would produce more than 20,000 gallons of water per minute in dry years as well as wet ones.

So in 1908, construction of a power plant began on the banks of the Verde

[TOP OF PAGE] Generator coils such as this have kept electricity flowing to parts of Arizona from the Childs power plant since 1909. [BELOW LEFT] After generating electricity at the Irving plant, water diverted from Fossil Creek continues through flumes, piping, tunnels and a storage reservoir to the Childs plant, a 9-mile journey, 400 feet of which flows through this elevated trestle flume. [BELOW] World War I increased the need for minerals and, concurrently, power for the mines in Jerome, resulting in the 1916 construction of the Irving power plant. [BOTTOM] Inside the Childs plant, APS plant operator Paul Randall works at the generators that will soon become museum pieces maintained by local historical groups.

[PRECEDING PANEL, PAGES 6 AND 7] Southeast of Camp Verde in central Arizona, water released from a flume at Arizona Public Service's power plant cascades over travertine rocks in Fossil Creek much as it did prior to the plant's construction at the Childs site in 1909, followed by the expansion at Irving in 1916. The two plants became known as the Childs-Irving Power Plant. [OPPOSITE PAGE] Golden columbine flowers brighten the banks of Fossil Creek near one of its springs.

River at a site called Childs, 14 miles west of the springs and 3 miles north of where Fossil Creek enters the river. The water would be carried to the plant via pipe, concrete tunnels and flume.

To install the plant required carving a primitive road up the rocky, rugged Verde Rim leading to Prescott. More than 600 men, 450 mules and 150 wagons toiled in grueling heat and winter storms to complete the 50-mile trail. To haul the largest piece of equipment, the stationary inner coil of the generator, required a 26-mule team. Many of the hard-working construction crew were from regional Indian tribes.

At that time no American manufacturer made steel strong enough to withstand the pressure of the water in the penstocks, the final conduits that would channel the water's force into the plant. Krupp Works in Germany was commissioned to forge the heavy steel pipes. Carried on ships from Germany via Cape Horn to Los Angeles, then overland to Mayer, the Krupp pipes finally arrived by mule-team in Childs.

When the Childs plant was completed in November 1909, water began to flow through 7 miles of conduit, including 10,000 feet of concrete tunnels, 12,000 feet of reinforced concrete flume, 7,500 feet of steel gravity-fed siphon, 4,800 feet of steel pressure pipe and 2,200 feet of wooden flume built over boulders, supported by wooden trestles spanning deep gulches, blasted into mountains and clinging to the side of cliffs.

[TOP] Fossil Creek drenches Michelle McManus.
[ABOVE] Released below the dam by Irving plant operators to allow workers to repair a break farther down the flume, water rushes over trees and vegetation back into the creek bed.
[RIGHT] A popular swimming hole near Fossil Creek Bridge attracts picnickers and campers.

According to the former manager of the Childs plant, Cliff Johnson, who retired in 1988, many of the Indian laborers were so spooked by the sight of water apparently traveling uphill that they walked off the job.

. . . many of the Indian laborers were so spooked by the sight of water apparently traveling uphill that they walked off the job.

Initially, the three generators began producing 2.8 megawatts of power daily for Yavapai County, including the mines around Humbolt and Jerome.

"It does not require a sage nor philosopher to understand the benefits that are bound to accrue to Yavapai County as the result of this enterprise," wrote the *Arizona Journal-Miner*.

The demand for electricity in the region grew because of a new copper smelter in Clarkdale, and plans for a second power plant were under way. In 1916 the Irving plant was constructed in Fossil Creek Canyon, 4 miles downstream from the springs with one additional generator and a new section of flume. This brought the power generation to 4.8 megawatts.

By the mid-1920s, power from the plants was extended through 75 miles of transmission lines to Phoenix, supplying 75 percent of the electricity used by the 30,000 people living in the state's new capital.

For the past 90 years, the generating equipment of the two "little plants that could" has hummed quietly. APS employees concede that, while bearings, brushes and bolts have to be changed periodically, the

(Text continued on page 14)

[OPPOSITE PAGE] Yellow monkeyflowers greet Fossil Creek as it exits the Childs plant and runs over the travertine terraces deposited by the mineral-rich water.
[FOLLOWING PANEL, PAGES 12 AND 13] Reduced water flow resulting from the upstream dam exposes what naturalist Charles Lummis in 1891 described as "bowl after bowl."

APS will shut down the plants and release all of the water back into Fossil Creek by December 31 of this year.

(Continued from page 10) bulk of the equipment — the German penstocks, the generators and the windmill transmission towers — are all original.

Due to the plants' significance as an engineering and construction feat, they earned designation in 1976 as a National Historic Mechanical Engineering Landmark from the American Society of Mechanical Engineers, and in 1991 they were added to the National Register of Historic Places.

But while the plants hummed on, dramatic changes were happening to Fossil Creek. Since most of the water was being diverted to generate electricity, the 14-mile creek became tame as a kitten, pouring lazily over inclines, in some places bone dry. The travertine pools of Lummis' time had all but disappeared. At the same time, the springs themselves started enjoying an increased popularity with hikers and backpackers. In 1984 the springs and the 11,500 acres above them were designated as the Fossil Springs Wilderness. By 1991 environmentalists were intent on restoring the flow of water to Fossil Creek, and began to campaign for the shutdown of the Childs-Irving plants.

Negotiations to close the plants began in 1999 between APS and an environmental coalition that included The Nature Conservancy, American Rivers, Sierra Club, Northern Arizona Audubon Society and the Center for Biological Diversity. In 2000 an agreement was reached.

"We have determined that it is simply the right decision to decommission Childs-Irving and reclaim the unique riparian resource that surrounds Fossil Creek," said Ed Fox, vice president of communications, environment and safety for APS.

Although still profitable, these tiny power plants employ 10 staffers and supply less than 1 percent of all the power generated by APS. The 4.8 megawatts generated that used to power entire mines and towns is now enough for only 1,000 average-size homes — "an amount of energy so small that it will likely go unnoticed by customers," Fox said.

Under the agreement, APS will shut down the plants and release all of the water back into Fossil Creek by December 31 of this year. During the following five years, all the equipment at Irving will be removed. The future of the historic buildings at the Childs plant is still undetermined. Pending funding, the Forest Service hopes to turn these buildings into a museum.

In addition to removing the flume, turbines and buildings, APS has also agreed to bear the cost of restoring the area around the plants to its native condition. The total project could cost APS millions of dollars.

"That's what is so wonderful," said Mindy Schlimgen-Wilson, former associate director of American Rivers southwest office. "They've agreed to take responsibility."

"This is a historic agreement for Arizona," echoed Dr. Robin Silver, conservation chairman for the Center for Biological Diversity.

WHAT FOSSIL CREEK WILL BE LIKE when restored to its natural state was impressed on me personally by a recent unexpected event. During a monsoon storm last fall, a rockslide smashed out a section of the Irving flume. While crews reconstructed a 20-foot section of the broken viaduct, APS released all of the water into the creek.

Seizing the opportunity, I took my two daughters to the diversion dam below Fossil Springs. "Wow," my eldest gasped when she saw the awesome amount of water rushing into the creek some 50 feet below. Intimidated by the force of the water, my 7-year-old refused to go near the dam.

The next day, we trekked from the Irving trailhead 3 miles upstream. Swimming deep pools, we came to a series of roaring cataracts. Spectacular cascades of white water thundered over jagged cliffs, each waterfall leading to a larger one.

While I watched the girls swim in a quiet eddy of a cobalt-blue pool, I sat on a rock and cooled off in the gentle mist-filled breeze created by the churning waters. The quiet roar of the creek was not enough to still the birds chittering in the cottonwoods above.

I closed my eyes and imagined what the creek will be like with travertine pools "coming down bowl after bowl."

Like a soothing easy storyteller, the creek was telling me the beauty of the future coming back from the past. AH

Myndi Brogdon, mother of two precocious hikers, lives in Strawberry and finds solace in having the natural wonder of Fossil Creek in her back yard.

Nick Berezenko lives in Pine, and likewise gets to Fossil Creek as often as he can, accompanied by his precocious dog Queenie.

[ABOVE] When renewed, the creek's "bowls" will provide natural breeding areas for some of Arizona's endangered fish species, such as the razorback sucker, Gila topminnow and roundtail chub. [RIGHT] Water-loving narrowleaf cattails prefer an alkaline environment, such as the calcium carbonate-laden water of Fossil Creek. [OPPOSITE PAGE] Usually standing on a dry slope beneath the flume near Fossil Creek Dam, trees and vegetation receive a thorough soaking as the released water plummets down the hillside.

HEARD MUSEUM TURNS 75

PREMIER SHOWPLACE FOR INDIAN CULTURES, ARTS & ARTISTS

BY PETER ALESHIRE

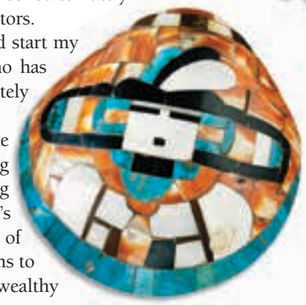
PHOENIX'S HEARD MUSEUM weaves together many threads — like catclaw braided in a basket, like clay coils in a pot, like wool on a loom — explaining native cultures, fostering a market in Indian arts and nurturing the careers of the artists themselves.

This year, the museum celebrates its 75th year.

Consider the case of fifth-generation Navajo weaver Barbara Ornelas, whose career was launched in the artist studios of the Heard Museum in downtown Phoenix. She had come to Phoenix from the reservation originally seeking a business degree, but in her homesickness she rediscovered her own roots and purpose. Recognizing her artistry, the Heard's curators offered her studio space, where she alternately worked and explained her art to curious visitors.

"I owe a lot to the Heard. It really helped start my career," said Ornelas, a Tucson weaver who has helped redefine attitudes toward the intricately woven Navajo rugs.

Her story underscores the vital role the Heard Museum has played in encouraging both Indian art and artists, while building relationships with modern tribes. The Heard's collection of 35,000 objects offers a glimpse of both ancient traditions and evolving reactions to the modern world — all the outgrowth of a wealthy



[LEFT] The Hopi-Tewa Senom Dance Group performs frequently at festivals and programs sponsored by the Heard Museum in Phoenix, which promotes education about the heritage, cultures and arts of native peoples. DAVID H. SMITH
[ABOVE AND RIGHT] Zuni Indian artists inlaid these mosaics of turquoise, jet and shell pieces over natural shells. JERRY JACKA

couple's fascination with other cultures coupled to an insatiable appetite for collecting. Here, displays of 1,000-year-old ancestral Puebloan pots adorned with abstractions of birds sit alongside colorful contemporary reinterpretations of ancient themes. The "oohs" and "aahs" of tourists and questions of the children suggest that perhaps Americans stand ready to appreciate the deep lessons of the ancient cultures they once tried to exterminate.

Phoenix pioneers Dwight and Maie Heard, who turned a collector's passion and a real estate developer's fortune into a celebration of Indian art and culture, would no doubt love seeing what their passion has wrought as the market for Indian art has grown. Artworks that once sold cheaply from reservation trading posts now can draw six-figure prices from avid art collectors, and the museum the Heards founded to house their personal collection has turned to promoting both an understanding of modern Indian cultures and helping to promote the careers of hundreds of individual Indian artists.

Ornelas, a highly skilled Navajo weaver, demonstrates the link between the museum and working artists. She grew up on the Navajo Indian Reservation in New Mexico among the legendary Two Grey Hills weavers. But she thought weaving was a dying art, a stone tied to the ankle of a drowning culture. So she went away to boarding school and did not tell her friends that her mother and grandmother had taught her to weave.

"I was real rebellious, and I didn't care for weaving," she said softly. "My grandmother said, 'You're going to be one of the good ones.' I'd say, 'I don't want to do this. Weaving is old people's work.' "

So she graduated from boarding school and headed for Phoenix, resolved to get a business degree. "I lasted about a month, and then called home and said, 'I'm too lonely and sad; I can't make it here.' But my dad said, 'Why don't you keep a loom in your house? Maybe it would help.' "

She set up a loom and resumed weaving rugs. When she met her future husband, he loved her work. "I began to see weaving through his eyes — as something special, like a gift to me from my grandmother. From there, I started to find the spiritual balance from my work. I started to find meaning in it."

She married and had children, deciding she would be a weaver so she could work at home. But when she took her rugs to galleries in Scottsdale, she said they laughed and told her they only bought rugs through the trading posts. But her rebellious spirit persisted until she finally convinced one gallery to take a rug on commission. It sold quickly.

Someone suggested she take her rugs to the Heard Museum Guild's annual Indian Fair and Market. The museum then offered to feature her rugs in the Heard Museum Shop and Bookstore. The Heard also offered her a studio as a guest artist, where she spent several years making rugs and talking patiently to curious tourists while her children wandered about the museum under the watchful eye of the museum staff and other artists.

"It was like a family," she recalled fondly. "We were all just starting out, just getting our bearings in the artist world. Even to this day, we see each other and just remember what we had at the Heard."

In the years since, Ornelas has won the coveted "best of show" at the museum's annual market. She and her daughter, Sierra, provided much of the interpretation for a recent exhibit on weaving, in keeping with the Heard's commitment to utilize a first-person voice and the expertise of working artists. She's just one of dozens of Indian artists who have played that role, including Gail Bird, Yazzi Johnson, Maynard White Owl Lavadour, Kay Walkingstick, Terrol Dew Johnson and Jody Folwell. The Heard relies on basketmakers, jewelers, potters, beaders, painters and other artists to review, interpret and display the huge collection.

Distinguished Native American artists often select work to display for special shows. In addition, whenever the shows, conferences or exhibits bring artists to the museum, the curators seek their help in interpreting the items in the collection. Often, potters or weavers can recognize the clan or family or individual that created a particular piece.

Museum Director Frank H. Goodyear Jr. hopes that kind of relationship with Indian artists, communities and cultures will animate the Heard's next 75 years.

"This is a living museum, a gathering place," he said, as he presides over the museum's determined effort to expand its relationships with the 21 federally recognized tribes in Arizona and others across the West. "It's part of who we are as Americans, with lessons to be learned and contributions that deserve to be celebrated."

The Heard tries to keep that celebration current by constantly shifting and rearranging its exhibits. Key exhibits include a large room where each of the 21 Indian tribes explains its history and culture, the masterworks exhibit representing each culture through art pieces going back 1,000 years, a hands-on exhibit for children,

[TOP] Navajo Barbara Ornelas finds spiritual balance through weaving creations such as this rug patterned after an 1850s child's blanket.
[ABOVE LEFT] This Hopi ceramic jar was featured on a postage stamp in 1977.
BOTH BY JERRY JACKA
[ABOVE] The Heard Museum exhibits exemplary pieces from its collection, giving insight into the artists' traditions and life ways. DAVID H. SMITH

[ABOVE] Navajo Mary Lee Begay demonstrates rug weaving to appreciative onlookers at the annual Heard Museum Guild Indian Fair and Market, a tradition for 46 years. DAVID H. SMITH
[LEFT] Basing her work on potsherds she found, potter Lucy Lewis of Acoma Pueblo led a revival of ancient designs and techniques that had been traditional for centuries. The museum collection includes some creations of this master potter, who died in 1992. JERRY JACKA

[ABOVE] The interactive exhibit "We Are! Arizona's First People" explains the history, cultures and futures of the state's 21 tribal communities. The mural in the background, by Navajo artist Steven Yazzie, extends 160 feet and depicts the forced relocation of several of Arizona's Indian tribes. HEARD MUSEUM [LEFT] A display of Pai Indian baskets showcases some of the outstanding pieces from the Heard Museum's collection. DAVID H. SMITH

regular showcasing for one or two artists and rotating exhibits mingling modern and ancient masterworks.

One of the most haunting exhibits examines the impact of the boarding schools originally established by reformers to "save" Native Americans by instilling the dominant culture and language. Recorded, first-person recollections — all full of sorrow, laughter, pride and loss — dominate the display of uniforms, dorm rooms, photographs, journals and other artifacts. A line of speakers provides commentary.

"One night when it was almost finished and before we opened it to the public, I spent an hour looking at it," recalled Goodyear. "It's the only exhibit in my life which moved me to tears. It's a tragic story, but in the end it's a triumphant story."

Dr. Ann Marshall, the Heard's director of collections, education and interpretation, recalled, "One Navajo woman came up to me and said, 'Now I understand more about my father and why he is as he is.' They didn't want their children to go through that and so didn't teach their children their native language. Sometimes, it's hard for them to express the sorrow they've gone through."

Such a mingling of triumph, loss and insight runs throughout the Heard's collection, the history of which has mirrored the shifting perceptions of Indian art and culture.

Certainly, when Dwight and Maie Heard moved to Phoenix in 1895 in hopes the dry climate would ease Dwight's lung ailments, most Americans viewed Indians as primitives, their cultures reduced to curiosities. Heirs to a fortune spawned by what became True Value Hardware stores, the Heards became leading citizens in the sleepy farm town of 4,000, built along the maze of canals abandoned in the 1400s by the Hohokam Indians.

The Heards bought 7,500 acres at the base of South Mountain and planted alfalfa, citrus trees and cotton and assumed their civic duty in an era in which wealth carried obligations of service. They moved in 1903 to Casa Blanca, a house they built at Central Avenue and Monte Vista Road in one of the neighborhoods Heard developed. They supported the Boy Scouts, Camp Fire Girls, YWCA and Woman's Club of Phoenix and donated land where the Phoenix Art Museum stands today for the city's first Civic Center.

Dwight Heard also became a major Phoenix-area developer and political force. He lobbied for the Salt River Project, published and owned the dominant *Arizona Republican* newspaper (which later became *The Arizona Republic*) and ran unsuccessfully for governor in 1924.

The Heards also undertook grand tours and collecting trips throughout the Southwest and then on to Africa and the Middle East. At first, they merely brought back curios to show their friends, filling their home with artifacts. Increasingly fascinated, they hired collectors, held open houses and stored a collection that grew eventually to 3,000 items. Next door to their home, they built a museum for their collection and opened it in 1929, just months after Dwight died at age 60 of a heart attack.

The museum remained Maie Heard's passion, in a life brimming with good works, until her death at age 83 in 1951.

The museum has grown ever since. Its collections expanded 10-fold and its exhibit space mushroomed from 12 rooms around a tree-shaded courtyard to 138,000 square feet with an education center, artist studio, library and archives, 350-seat auditorium and assets exceeding $34 million. The $6 million annual operating budget relies heavily on donations and grants and the labors of 700 volunteers and docents.

The museum's anniversary celebration begins June 13 with free admission, birthday cake, history exhibits, performances by champion hoop dancers, tours, artist demonstrations and a special commemorative gift for each visitor while supplies last. A redesign of the Heard's signature exhibition will open at the end of the anniversary celebration in spring 2005. The planned exhibit represents the latest evolution in the museum's philosophy, which has both led and reflected the public's growing appreciation of Indians' profound sense of spirit, place and artistry. Guided by Native Americans from many different cultural groups, the new display will showcase 2,000 of the finest pieces from the Heard's collection.

A visit to the Heard's 18,000-square-foot gallery will offer a first-person voice that speaks to a sense of place and of home and an introduction to the cultures of the Southwest — including the people of the New Mexico pueblos, the Colorado Plateau and central mountain region, the Colorado River and Sonoran Desert. The exhibit turns on the words of the artists, makers and keepers of the culture who honor the past without being confined by or marginalized by it.

So a delicate, richly decorated 800-year-old Chaco mug sits next to a ceramic vessel by contemporary Pueblo potter Lucy Lewis. A blocky, century-old Black Nataska Hopi kachina intended to teach little girls about the sacred spirits of their culture stands next to an intricate carving of the same spirit by modern Hopi carver Brian Honyouti. A Navajo chief blanket, also 100 years old, made with the muted colors of natural dyes is draped alongside weaver Evelyn Joe's contemporary design inspired by those same patterns.

Meanwhile, a new generation of guest artists works in the Heard's artist-in-residence studio, updating a tradition so ancient that the flurry of change in the Heard's 75 years seems but a moment.

That working arrangement deeply satisfies Barbara Ornelas, who often weaves for more than 10 hours a day, laboring until perhaps 4 A.M., the still hours, when a slumbering world cannot overwhelm the spell of the loom. She weaves and thinks of her grandmother and perhaps of Spider Woman, who gave the People the gift of weaving by gathering colors from the four sacred mountains and putting lightning in the stick and rain in the string.

Ornelas' daughter, now at the University of Arizona, wants to make movies. But her 20-year-old son wants to be a weaver, the sixth generation of Two Grey Hills weavers.

She thinks he will do well. After all, last year he won the "best of show" award at the Heard Museum Guild Native American Student Art Show and Sale.

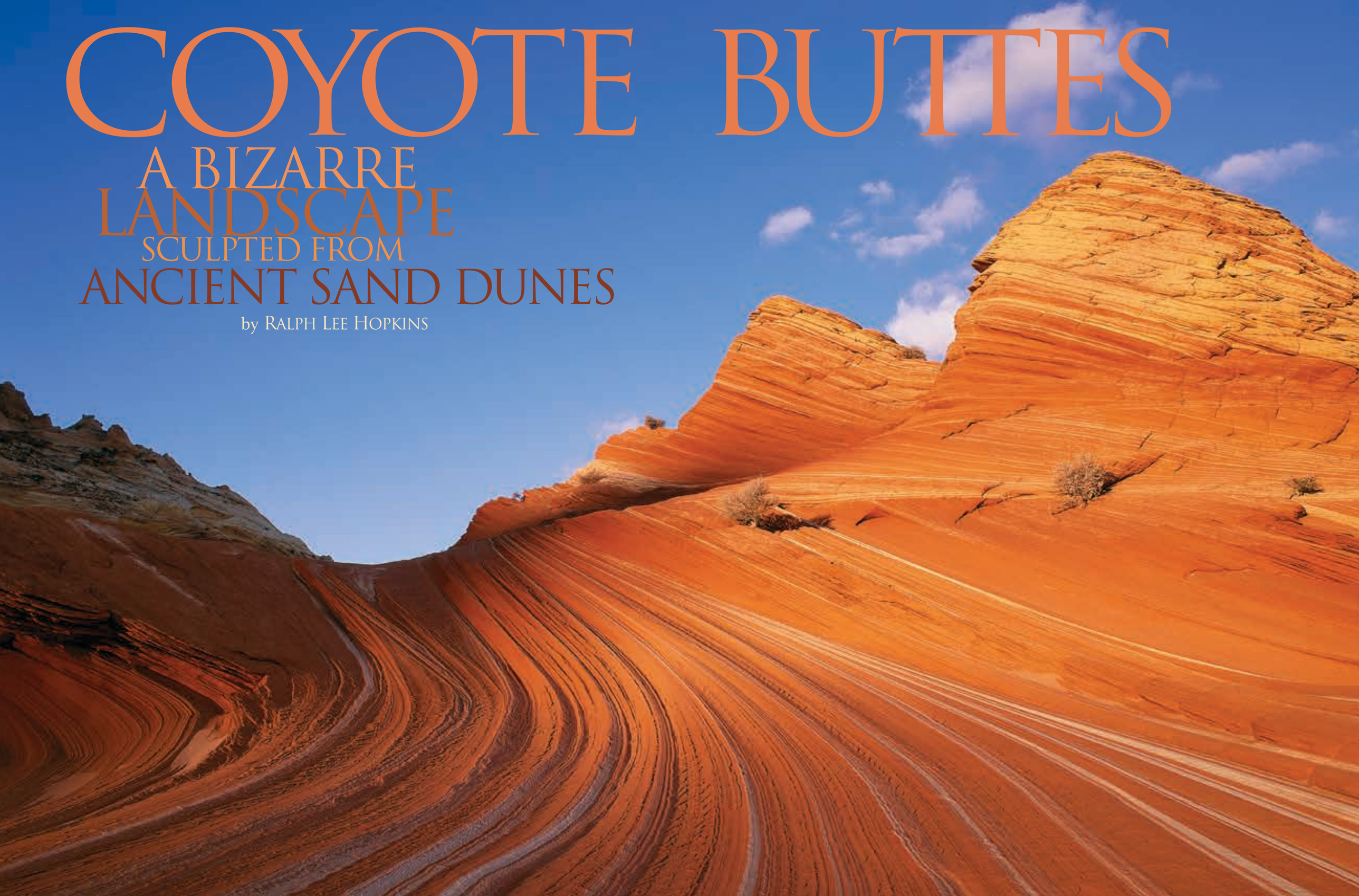
Peter Aleshire of Phoenix has written four history books about the Apache Indians, but says he learns something new and surprising every time he visits the Heard Museum.

[TOP] This stone and silver necklace, made in 1935, exemplifies the work of Leekya Deyuse, Zuni, considered a pioneer in the carving of turquoise and coral. [ABOVE] Brian Honyouti, Hopi, created this carved kachina doll, Palhikmana. The back view of the two-sided doll is shown here. BOTH FROM HEARD MUSEUM

COYOTE BUTTES

A BIZARRE LANDSCAPE SCULPTED FROM ANCIENT SAND DUNES

by Ralph Lee Hopkins



Coyote Buttes,

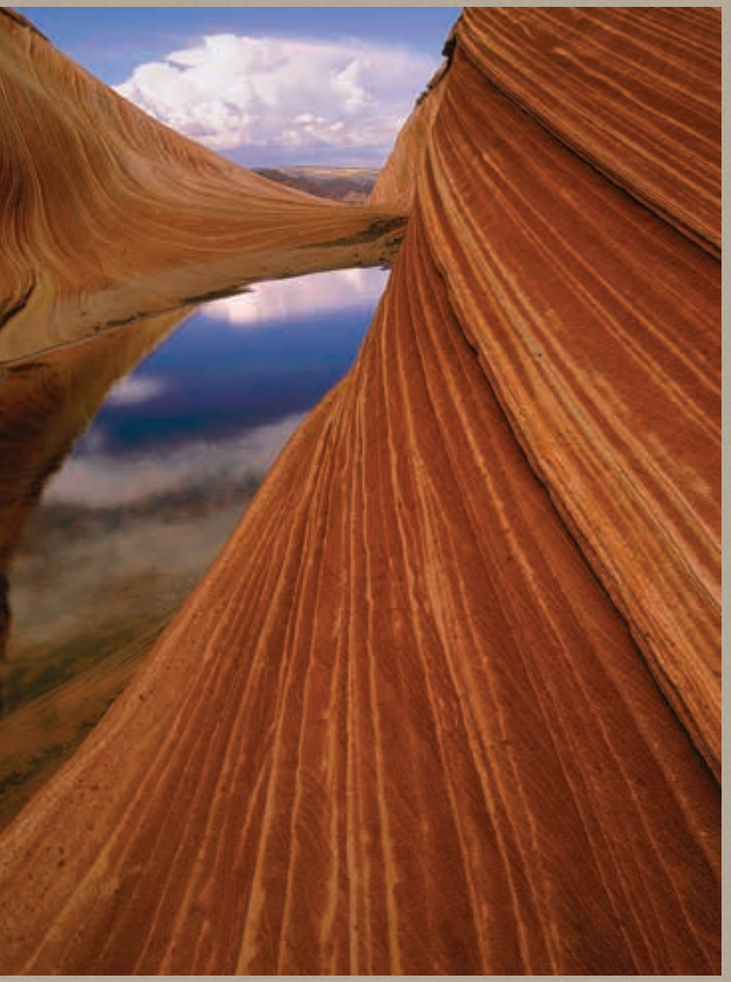
a fanciful microcosm of sculpted sandstone unlike any other place in Arizona, lies hidden within a maze of colorful cliffs, canyons and buttes about 40 miles west of Page, along the Arizona-Utah border in the Paria Canyon-Vermilion Cliffs Wilderness.

Worn smooth by wind, water and time, Coyote Buttes' slanted and curved layers — called crossbeds — represent the steep faces of once-giant sand dunes. Ancient winds piled the sand about 150 million years ago, during the late Jurassic Period. Today, these swirling formations are exposed along the crest of the Paria Plateau, one of the lower steps of the "grand staircase" of geologic layers stretching from Utah's high plateaus south to the Grand Canyon.

Bizarre patterns in the rock create a three-dimensional jigsaw puzzle for the eyes. Myriad colors decorate the petrified dunes, a by-product of the groundwater that helped turn a great sandpile into the famous Navajo sandstone of the Colorado Plateau.

Long ago, weathering sculpted the compacted strata deposited over an ancient coastal plain according to the hardness of each layer. Some wore away into valleys and curvaceous slopes, and some held fast as benches and ridges standing over the valleys, creating today's sandstone formations.

Established by an act of Congress in 1984, Coyote Buttes is found within the 110,000-acre wilderness protecting the wild and twisting canyons of the Paria River and the 2,000-foot-tall escarpment of the Vermilion Cliffs. Once home to the ancestral *(Text continued on page 28)*



(Continued from page 24) Puebloan people, also called the Anasazi, and later part of the route crossed by Spanish explorers with the Dominguez-Escalante Expedition in 1776, this area is one of Arizona's newest public lands — the Vermilion Cliffs National Monument, signed into law by President Bill Clinton in 2000.

To capture the best light, photographers who revere this landscape set out on foot before sunrise and return well after sundown. They hike with careful steps, walking softly and using care when setting up tripods, to leave the canyon as they found it and hoping all who come after them will feel the same.

EDITOR'S NOTE: To help protect this popular and fragile area, camping is prohibited, and hiking permit applications must be submitted several months in advance to the Bureau of Land Management, Arizona Strip Field Office, (435) 688-3230.

To reach Coyote Buttes from Page, drive west for about 30 miles into Utah on U.S. Highway 89 to the Paria Canyon Ranger Station. At the big bend in the highway some 5 miles past the station, turn left onto the unmarked dirt road where you will find the Wire Pass trailhead after another 9 miles.

The challenging but rewarding 3.5-mile trail to Coyote Buttes requires a topographic map and route-finding ability, and is best hiked with a dependable companion. The landscape is not friendly in the heat of summer — there is little shade, no dependable water and sections of soft sand to cross. Hikers can enjoy this remote adventure by carrying plenty of water and a flashlight, even when the plan is to return before sundown.

To protect and conserve Coyote Buttes for future generations, only 10 visitors per day are permitted access.

Triumphs of the CONDORS

With caretakers' help, the great soaring birds fight to thrive in northern Arizona

BY CHRISTINE MAXA PHOTOGRAPHS BY BOB MILES

"I GO TO BED worrying about my 'kids,'" said Andi Rogers, a biologist for the Arizona Game and Fish Department, whose work is to help save the California condor from extinction.

A warm wind shimmied a weary colony of blackbrush, leafless and darkened with age, that spread across the level landscape as Rogers and Susan MacVean, a nongame wildlife biologist with Game and Fish, backpacked on the West Tonto Trail in Grand Canyon National Park.

A line of telephone poles followed the route for a short distance beyond the Bright Angel Trail. A couple miles farther, a metal tower on the South Rim near Powell Point, just above the Horn Creek drainage, showed itself prominently.

"That tower used to be a favorite hangout for condors," said Rogers.

She and MacVean recited a stack of facts and anecdotes about California condors — the "kids" Rogers so earnestly worries about — as they headed across the plateau to another condor point: the nesting site of Arizona's first wild-born California condor in modern history.

The First Parents (condors 123 and 127) had nested the year before in the Horn Creek drainage across the canyon from a 2001 and 2002 nesting site of another condor couple (119 and 122). Each condor couple incubated their single eggs devotedly. The First Parents' egg never hatched, and the fate of the other couple's egg was never determined. Nevertheless, the birds took on hero status in a program that continues to inch its way to success since its inception in 1988.

The scavenger condors had flown over Arizona, and much of the western United States, since ancient times. In 1967, the U.S. Fish and Wildlife Service added the condor to its Endangered Species List. By late 1984, only 22 condors kept the species from extinction. In 1987, the wildlife agency took the remnant birds into captivity to save the species.

Through a joint effort of Fish and Wildlife, The Peregrine Fund, Arizona Game and Fish, Grand Canyon National Park, the Bureau of Land Management and other partners, condors got a chance to fly in Arizona skies again. In 1996, the agencies released six birds 3 miles north of U.S. Route 89A on House Rock Valley Road, a ribbon of red clay in a sea of sage that parallels the Vermilion Cliffs. The site, remote and full of the condors' favorite foods of carrion of cattle, deer and elk, presented the condors' preferred habitat of sheer cliffs. Also, ancient remains of condors found in the Grand Canyon indicated the birds had a former connection with the area.

Today, Arizona has 41 free-flying condors, and many have made the Grand Canyon their stronghold. The reintroduced birds have plenty of help from the agencies' dedicated crew of wildlife biologists.

A cross between guardian angels and nurses, the biologists have kept a constant vigil on the birds. During the day, the biologists sit and watch from the release point along House Rock Valley Road and take meticulous notes on the birds' activities. They follow the condors around the countryside on the North Kaibab Plateau and South Rim of the Grand Canyon, keeping watch over the birds lest the newbies get into a perilous predicament.

To facilitate management and observation, the biologists ensure that Vermilion Cliffs remain a "home base" by hauling 40-pound pails of water a half-mile across a sandy trail atop the cliffs to provide a reliable drinking spot for the birds. At night, the biologists make sure the newly released birds roost out of harm's way. Sometimes that means climbing up a precipitous canyon during a rainstorm to shoo a condor from a sitting-duck roost to a safer perch out of reach of coyotes. Later, the attentive scientists tuck the birds' favorite meal near a juniper: bloated stillborn calves procured from several dairies in the Phoenix Valley.

Without condor parents to give them correct examples of what to do, some of the reintroduced condors occasionally make poor decisions. Naysayers of the restoration program have insisted this inept behavior would prove the program a flop. With Baby Condor Number 305 arriving on the scene, the reintroduction program has taken a new turn.

"The chick's successful hatching is one of the biggest steps in the entire process," said Chris Parish, project manager for the California Condor Restoration Project with The Peregrine Fund. "It's the beginning of the next step — wild condors produced in the wild. This event says the birds can be hatched in captivity, released as juveniles and reproduce in the wild. They have enough innate information to make it."

Though the condors rank among the most-monitored creatures in the universe, more than a week had gone by without anyone hiking into the canyon to observe Baby Condor 305. No one knew if the chick was dead or alive. This gave Rogers the jitters. The 12-mile hike to camp, located in an area of a South Rim side canyon called The Inferno, ended at nightfall. Rogers would once again have to go to bed worrying about her charge before she could head up to the observation rock to view Arizona's baby condor the next day.

Viewing the chick, like the rest of the responsibilities of the reintroduction program, did not come without hard work and some precarious moments. The observation rock, an outcropping of sandstone jutting from the bottom of the vertical Redwall formation, required a climb of 700 feet in .2 of a mile up a treacherous limestone and shale talus slope. But first, Rogers and MacVean had to take precautions at camp, noting the condors' proclivity to engage in behavior such as tearing apart tents or backpacks. Some, especially the younger birds, periodically take food from tourists and occasionally cause a ruckus at campgrounds. The condors' mission is not to seek and destroy. Rather, the birds have an inquisitive nature that tilts to the playful.

Parish says: "Condors like to play with things — sticks, cans, garbage and especially colorful stuff. In captivity, we've watched them play with a 2-liter bottle, tossing it over their heads like a puppy, then running after it to kick it."

While some of the juveniles attract unwanted attention with their delinquent behavior, condors generally stay away from the crowds.

After the hair-raising climb up to the observation rock, Rogers set up a high-powered spotting scope to view the nest, a cave in the Redwall formation about .3 of a mile away that looked like an indistinct crack. At the beginning of her all-day vigil, she found the chick alive and well, standing in the mouth of the cave.

Baby Condor, born sometime in March 2003, stayed in the back of the cave, out of sight, until August 15. Before then, the researchers could tell the First Parents had lain an egg by their roosting activities. They also knew about when the egg had hatched by the general change in frequency of time spent at the nest cave. The parents actively attended to their chick the first few months with snuggles and meals. Now, with the chick almost full-grown at just over 5 months old, the parents showed up only to feed it. Recently, the visit usually lasted only about six minutes every other day — enough time to swoop into the cave, feed the chick, and leave.

Condor mealtime has a distinctive frenzy to it, much like a rugby scrum, with a group of birds pushing and kicking to get to the carrion. Baby Condor's meals had the same frenetic behavior with the chick practically

[LEFT] Susan MacVean (right), Arizona Game and Fish Department nongame biologist, and author Christine Maxa observe the terrain near Baby Condor Number 305's nest in the Vermilion Cliffs.

[TOP] From her perch .3 of a mile away from the nest, biologist Andi Rogers monitors the development and movements of Baby Condor 305 through a 60-power spotting scope.
[CENTER] Rogers holds aloft a radio-tracking device that picks up signals from transmitters attached to the chick's condor parents.
[BOTTOM] Here, after fledging at almost 8 months old, Baby Condor 305 experiences the world beyond its nest cave. C. PARISH/THE PEREGRINE FUND

tackling its parent to get its meal of regurgitated carrion.

"They smell bad," Rogers quipped, then added, "They urinate on their legs to keep cool, and they're always regurgitating something."

Regardless of their indecorous appearance and uncouth manners, Rogers calls them "incredibly charismatic vultures." The rest of her colleagues agree.

Any close encounter with the 4-foot-high birds, whether hearing the whoosh from its 9-foot wingspan or seeing them on the ground, can cause unnerving moments. The birds' lack of elegance on land, however, gets forgotten by the majesty they exhibit once airborne. Condors can finesse the thermals on which they glide so well that they may only flap their wings once every hour and a half.

"Condors are more supremely built to soar," said Sophie Osborn, field manager for the California Condor Restoration Project with The Peregrine Fund. "It's just awesome to watch them in flight. The flight is so effortless. It has a dreamy, floating quality."

No one knew how Baby Condor's first flight would look, as the last documented fledge took place in the 1980s in a completely different landscape in California. The Grand Canyon had all the elements young condors needed for a perfect fledge — big thermals and open space.

In the meantime, Baby Condor did what most baby condors do — generally nothing — so that even the slightest movement the chick made received special attention from Rogers and MacVean as they watched.

"Oh, he's stretching."

"Look, he's moving his wings."

"He's scratching his head again."

All these casual moments actually had scientific significance.

"We glean a lot of good information from what the chick does," said Chad Olson, raptor biologist for Grand Canyon National Park. "We can tell if it's healthy and if it's progressing normally in its development."

The canyon walls shaded the observation rock most of the morning, but by afternoon, the fierce heat of the sun pounded on the observation rock and gave The Inferno's name new meaning. Originally named for the rich, ruddy color of the Redwall formation, The Inferno became more Dante-ish than aesthetic. Rogers and MacVean took turns holding a small black umbrella. Even Baby Condor tried to beat the heat in its own way.

"He's napping," MacVean announced.

About the time the canyon wall started to cast a cooling shadow, Baby Condor rose from its afternoon siesta. The condor performed some prefledge exercises.

"The wings are out," Rogers said. "Big wings, big wings. He's hopping around."

Dad finally showed up at the end of the day with the goodies. He made a sudden sweep around the canyon, and then a dive into the cave. Both Dad and Baby Condor disappeared into the back of the cave.

With Baby Condor fed and nightfall on its way, the biologists made their way back down to camp. They planned to spend the next morning observing the chick, then head out of the canyon.

"We expect several more events like this one in the near future," said Olson about Baby Condor's arrival. "It's an exciting stage of the reintroduction. It's all what we've been working toward for a very long time."

[ABOVE] Reintroduced to the Vermilion Cliffs area near the Grand Canyon, California condors may fly 150 miles in one day searching for carrion. They require expansive, remote habitats for foraging and breeding. GARY LADD

AUTHOR'S NOTE: Baby Condor 305 finally fledged on November 5, 2003. The first flight looked more like a controlled plummet, with the condor's outstretched wings parachuting its fall and landing it on a talus slope about 500 feet below its nest. Biologists rushed to tag Baby Condor with telemetry equipment, but the fledgling escaped their clutches. By March of this year, the healthy and hearty condor had revisited its nesting cave a couple of times and flew around the corner to Horn Canyon. Nevertheless, the condor still prefers the neighborhood of The Inferno. Visitors to the Grand Canyon might spot the condor from Hopi Point if they know what they are looking for.

Christine Maxa of Phoenix says that although she cleared her campsite, as the biologists advised, ravens found her backpack, unzipped a pocket, and played with some of its contents.

Bob Miles of Phoenix first backpacked the Grand Canyon in 1969 and has been involved with California condor recovery in Arizona since 1996. He works for the Arizona Game and Fish Department.

A FABLE ABOUT THE FINAL BATTLE LEADING TO A PEACE TREATY AMONG FIVE INDIAN TRIBES

An OLD WARRIOR'S LAST HUR-RAH

RETOLD BY PAULY HELLER
ILLUSTRATION BY EZRA TUCKER

[ABOVE] Proud protector of his heritage, the late Maricopa tribal elder Ralph Cameron stands on his tribe's ancestral land near the Estrella Mountains south of Phoenix. DAVID ZICKL

NICKNAMED "BULL" by his fellow Bushmasters, an all-Indian combat team during World War II, Maricopa Indian elder Ralph Cameron at 88 still displayed a muscular girth of chest and neck. On April 12, 2003, I watched him dominate a podium within a makeshift auditorium at the Pee Posh Veterans Memorial Center at Laveen just south of Phoenix, between the confluence of the Salt and Gila rivers.

Amid the background bustle of children playing, women cooking fry bread and barbecued beef, and teen-age girls in traditional Indian dress flirting with boys in blue jeans, Cameron recounted the reason for this gathering, the commemoration of a peace treaty signed by five Indian tribes on April 11, 1863.

One of the few remaining people who spoke the language of the Maricopa Indian tribe, or Pee Posh as they were known through the 1800s, Cameron was a living history book until his death last November.

His ancestors, he told me in an interview, kept no written records. Individuals chronicled and retold their life stories using knots and notches on "history" or "calendar sticks" that went with people to their graves. In keeping with their tribe's beliefs, their names were never mentioned again to allow them rest among their forebears. Having held their oral traditions sacred and within the tribe for centuries, some Maricopa elders, like Cameron, have decided to share the stories from their heritage with others, hoping to preserve their viability.

One such story recounts an Indian battle in 1857 at Maricopa Wells, one of 12 Indian communities stretched along 20 miles of the Gila as it is joined by the Santa Cruz River. The two most westerly were Pee Posh settlements that had allied with the more numerous Pima Indian villages for protection against enemy tribes.

Traveling from their home on the Colorado River, the Yuma Indians, then called the Quechans, aided by some Mojaves, raided these quiet farming settlements on the morning of September 1, 1857. The battle, now known as the Massacre on the Gila, became significant as the last Arizona battle among Indian tribes. In the tradition of a Maricopa grandfather teaching morality through fables, Cameron recounted to me the following tale of that historic event. I've added names and dialogue to convey the full passion of his original story.

EAGLE'S CLAW SMILED through his dream:

Legs planted like tree trunks, he drew strength from the rich earth along the east-west flowing Gila River that gave his people

fish and water for their crops. He stood immovable, as unshakable as the nearby mountain the white men called Sierra Estrella. A mighty warrior from the Pee Posh tribe, he shouted insults across the line in the dirt at his enemy, the champion of the Quechan tribe.

"Your great-grandfather sat backwards on his horse!"

"Your father's grandmother slept in the huts of her husband's neighbors!"

"Run to Vi'Kumay, your sacred mountain — it is no more than a hill of ants."

The Quechan band quaked with fear and fury at the irreverent assaults upon the spirits of their ancestors and their sacred traditions. Eagle's Claw felt his body surge with energy from the strength of other Pee Posh warriors gathering behind him.

"I will surely win another feather for my headdress today," Eagle's Claw gloated. "These Quechans are cowardly. They will run and hide in the hills as soon as they see they can't win against the mighty Pee Posh tribe."

Thunder rumbled in the hills to the west.

"The brother of your great-grandfather fought like a woman!"

Eagle's Claw laughed with scorn at this feeble retaliation from the Quechan champion. The roar of thunder from an approaching storm grew louder, and the earth reverberated, as from the pounding of horses' hooves.

IT WAS HORSES' HOOVES! "Eagle's Claw! Wake up! The horses are stampeding!" The sharpness in his wife's voice sliced through his dream. He yearned to cling to the fantasy, but Dancing Fox persisted. "Eagle's Claw, hurry!"

Instinctively Eagle's Claw grabbed for his warrior's club as he rolled from his mat.

"Ugh!" he groaned. He had forgotten about the aches and stiffness in joints and bones that had seen 76 summers.

He squinted at the dusty morning light slanting in through the east-facing doorway of the mud-caked hut.

I built this home by the ever-flowing spring when our people moved to this valley. The thought filled him with satisfaction as his eyes swept the interior.

I packed the skeleton of mesquite poles and willow branches with arrowweeds and straw that I gathered. By myself I mixed the mud and water to coat the framework to keep out the rain and the heat. Surely, I maintain it as well as any of the younger men of the village.

Despite the urgency of the moment, his eyes lingered on his headdress hanging on the wall. Its feathers spoke wordlessly of his valorous deeds, just as the singer, Cry of Wolf, sang of them in his commemorative honor songs.

What had spooked the horses this late-summer morning? The herd served as the watchdogs of the village, grazing beyond the homes along the river. When danger approached — whether wolves, mountain lions or marauding enemy warriors — the horses snorted and reared and raced through the cluster of huts with hooves drumming out alarm.

"My husband, look!" cried Dancing Fox, at last moving Eagle's Claw to action.

The pungent smell of smoke carried on the dust of the disappearing herd assaulted his nostrils as Eagle's Claw crawled through the low doorway. Leaning heavily on the club in his hand, he commanded his reluctant knees to sustain his weight as he attempted to stand. Silhouetted against a western horizon dotted with flames, the figure of a runner approached.

I once ran like that, when we first came to this land and found it good for farming and fishing, he thought. *Like the coyote who runs for days, I ran back to tell my chief the news of this good land and its sweet water. This runner moves like Bird in Flight, the son of our son.*

At that moment Dancing Fox confirmed with a shout, "It's Bird in Flight!"

Barely panting, yet glowing with perspiration on a brow too young to be furrowed with such concern, Bird in Flight grabbed his grandfather's arm and saw him wince. He loosened his grip, took a deep breath and gently pulled Eagle's Claw to his feet.

"The Quechans and Mojaves marched all night and attacked the first homes in our village and set them on fire," said Bird in Flight. "Some of our women are dead. The rest have taken the children and fled to Lone Butte. You must go there, too, in order to be safe while I gather our warriors for battle."

"What do you mean — I must go? I have never run from a battle. Look, I have my club already. I will defend our home," answered Eagle's Claw.

"Father of my father, you were once a great warrior, but now you are an old man. You can barely walk, let alone fight." Bird in Flight pulled Eagle's Claw like a stubborn toddler toward Dancing Fox and joined their hands. Pushing the two of them in the direction of the nearby hill, he urged, "Now take Grandmother and go to a place where you can watch our battle in safety."

Bird in Flight turned to leave. "Please, Grandfather, for Grandmother's sake, go! I must warn the others," he shouted over his shoulder as he trotted away. In a moment he had broken into a gallop and was gone.

Obediently the gray-haired couple hurried toward Lone Butte.

"My headdress! He didn't let me take my headdress!" muttered Eagle's Claw.

"What are you saying?"

"If I cannot fight in the battle, at least I can let those sons of dogs know that the old man with the women and children has earned his share of feathers," he said. "I am going back for my headdress."

"Eagle's Claw, you can't! Not now! There isn't enough time! Bird in Flight said . . ."

But the aged warrior had already started back toward their hut at a pace he imagined was like his grandson's swift stride. Shaking her head, Dancing Fox walked behind her shuffling husband.

"I'll wait for you here under the mesquite tree. Please hurry," she urged when they reached their starting point.

Eagle's Claw crawled into the darkness of their hut. A minute later, he emerged with the feathered band draped over his gray head like the wilted petals of yesterday's wildflowers.

"Eagle's Claw, the enemy is upon us!"

From his knees, Eagle's Claw heard his wife's panic-stricken last words, saw the arrow strike her in the back, watched her crumple like a rag doll dropped by a negligent child. Unable to catch herself, her life was gone before she hit the ground.

"No-o-o!" Eagle's Claw howled, scrambling on all fours toward his fallen mate, his companion and, as he now realized, his reason for living.

The next arrow struck him in the right thigh and knocked him to his left side. He grunted and pulled himself toward her. Another arrow pierced his exposed right shoulder, nearly pinning him to the ground. Somehow he reached into his final reserve of warrior's strength and clawed his way to Dancing Fox's lifeless body. One more arrow found its mark, and Eagle's Claw collapsed alongside his wife to dream no more of wars and taunts and victories and feathers for his headdress.

In two hours it was all over. Warriors from the Pima villages had quickly joined the Pee Posh and outnumbered the attackers. Some of their enemy they trampled with their horses, some they shot with arrows, some they stoned or beat to death with heavy clubs. Two or three were allowed to escape and return to describe their defeat to the women and children and old people they left behind in their villages to the west. The bodies lay where they fell, never to be touched or moved or buried, only to cook in the hot desert sun, to decay and return to the dust of their origins, leaving bleached bones on the dry earth.

As the women and children straggled back to their homes from the safety of Lone Butte, the singer Cry of Wolf strode through their midst, his head filled with songs of victory and triumph for his Pee Posh people. He stopped when he came upon the bodies of Eagle's Claw and Dancing Fox, and looked over the bloodstained field of enemy corpses. His elation evaporated like a drop of rain on the desert floor in the heat of summer.

With sudden insight, Cry of Wolf understood the futility of their ongoing feud with their neighbors to the west and felt pity for the disgraced Quechan tribe, which had lost nearly all of its warriors. The spirit of a song came upon him and he sang:

"T'mahn'o mahna'che no.
Right now my heart is all darkened.
Later generations will sing this song
Of Vi'Kumay, Mojave sacred mountain.
You are like an old woman,
You have painted your walking cane,
And now after this battle,
You are leaving your home grounds.
O'yay'kah o'kay yah'ko
Where can I look? Where can I look?
But these things are forever turning
my head,
And I see,
And I fear that place."

FIVE YEARS AFTER THE BATTLE, the Maricopa and Pima tribes signed a treaty with the Quechan (or Yuma), Hualapai and Chimehueve (a branch of the Mojaves) tribes ending generations of warfare. On April 11, 1940, representatives from all of the tribes attended the first Festival of Peace commemorating the signing of the treaty and honoring their ancestors, and setting aside longstanding grievances to build a future of peace. Each April the celebration continues at the Pee Posh Veterans Memorial Center.

Eagle's Claw and Dancing Fox did not hear Cry of Wolf's honor song, and did not know of their enemies' defeat in this 1857 battle at Maricopa Wells along the Gila River. But their story and the song live on in a tenuous existence.

As a young girl, Ralph Cameron's mother, May Eliff, had watched the battle from a hillside. Seventy years later, she sang the song to Cameron, and 73 years after that, Cameron sang the song to me in hopes of preserving it for future generations. AH

Pauly Heller, an art assistant at Arizona Highways *magazine, felt enriched by her association with Ralph Cameron.*

Ezra Tucker has been fascinated since childhood with exotic lands, mythology and tales of adventure.

SPLISH Splash

WHEN TWO GRANDMOTHERLY TYPES Take to Kayaking, the Mud Hens Flee

text by **Janet Webb Farnsworth** photographs by **Bernadette Heath**

"Hold still!" I yelled back to photographer Bernadette Heath, who was causing our yellow tandem kayak to rock precariously from side to side.

"I'm not moving; you're the one wiggling all over the place," she snapped back.

"Not me. All I'm doing is breathing. Now sit still."

Afraid we would capsize, I didn't dare turn around to look, but I just knew Bernadette was doing the boogie in the back half of our kayak.

"You're doing just fine," said Peter Zwagerman, owner of Arizona Canoe & Kayak in Tempe, and instructor on this expedition. "You'll get the hang of it."

I hoped he was right. This was the first time in a kayak for Bernadette and me, and we had problems keeping the thing upright on Apache Lake. We planned to attend Zwagerman's two-day class on kayak camping, learn to handle and pack a kayak, joyously paddle to Mazatzal Bay, spend the night, then head on down the lake to the marina the next day. We managed to cram our supplies into the crooks and nooks of the kayak, but we had a hard time with the joyous paddling.

Apache Lake stretches for 18 miles between Horse Mesa Dam and Theodore

[OPPOSITE PAGE] Kayaks await a day's excitement at Apache Lake east of Phoenix. [BELOW] One of four storage reservoirs created by a series of dams along a 60-mile stretch of the Salt River, Apache Lake offers year-round boating and fishing opportunities.

Roosevelt Dam along the Salt River. Surrounded by the Superstition Wilderness and Three Bar Wildlife Area in the Tonto National Forest, the long narrow waterway makes a playground for boaters and fishermen and a home for javelinas, bighorn sheep, eagles and a pair of terrified kayakers who feared they were on the "endangered" list.

Just getting into a kayak puts your nerves on edge, especially if you're nicely into your 50s. It required stepping into a spray deck, which looks like a rubber skirt held on with suspenders, then adding a PFD, personal flotation device, known to landlubbers as a life jacket. Through a series of nearly impossible contortions, we eased down into the hole, or cockpit, fastened the spray deck to the kayak and prayed. Our kayak was a "two-holer," more properly called a tandem, and it doubled the problem of getting in because there were two of us struggling.

As we pushed off from shore and waited for the rest of the group to load, Bernadette and I felt like a pair of sitting ducks as waves from passing boats threatened to upend us at any moment. Zwagerman called from the shore, "You two have to use teamwork!" Then he laughed. We'd attended his canoeing class (see *Arizona Highways*, March 1998, "A Canoeing Class for Fumbling Grandmas Turns Out to be a Hair-raising Adventure") and he knew we had trouble getting our act together. To add to our indignity, he had tied a Winnie-the-Pooh float ring to the back of our kayak, where it bobbed ridiculously along, but was comfortingly close if we went overboard.

The other students, Ron Jackimowiez and his wife, Karen, got their single kayaks into the water with grace and ease, much to our chagrin. As we started across the lake, the others paddled confidently while Bernadette and I wobbled ignominiously behind, trailing our float ring. Zwagerman's assistant, Steve Rizzo, stayed near us. Clearly, Zwagerman had assigned him to keep an eye on us, so we dubbed him the granny-sitter.

I sat in the front cockpit and had two jobs: first, to provide forward motion by means of smooth, rhythmic paddling and, second, to warn Bernadette of objects we were about to hit. Bernadette had one simple job: to steer with her paddle. While I propelled us forward remarkably well, Bernadette couldn't seem to get a handle on steering. We zigzagged back and forth, covering twice the distance of the other kayakers. Granny-sitter Rizzo sat patiently in his kayak and shook his head as we roamed the lake.

"Mud hens straight ahead," I announced nautically as we approached a small flock of birds swimming peacefully.

"I'll steer around them," Bernadette replied confidently.

"Mud hens closing in," I repeated worriedly.

"I'll turn and we'll miss them for sure," Bernadette gasped as we plowed straight ahead, sending squawking birds flapping

[ABOVE] Aided by amused kayaking instructor Peter Zwagerman, Bernadette Heath, (wearing red life vest and jacket) and author Janet Webb Farnsworth (in lilac life vest) engage in an aquatic comedy of errors during their kayak-camping training adventure. ALL BY DAVID H. SMITH

in all directions. She wasn't much of a backseat driver.

Finally we reached Mazatzal Bay, more delighted than Noah to get on dry land, but Zwagerman had other plans for us: to learn a wet exit and a deep-water re-entry. I was seriously troubled by this. First, my spray deck kept me snugly in the kayak, so how was I going to get out of it underwater? Second, I had trouble getting into the kayak close to the shore, so how was I going to manage out in the lake?

There was one redeeming point, though. David Smith, another photographer, was going to take pictures of Bernadette and me going through our maneuvers. I'd been camera fodder for Bernadette for three years, and now a photographer would take pictures of her doing something stupid.

Behind a mesquite tree with plenty of sharp thorns, I donned polypropylene foundation clothing that resembled a pair of navy-blue long johns, struggled into a wetsuit, added my blue spray deck, lilac life jacket, an orange noseplug and a white helmet. Bernadette at least looked coordinated in her black and red outfit.

We waddled to our kayak and got settled in less than 10 minutes with a minimum of "sit still" bickering. Zwagerman patiently explained the procedure: Paddle out, each tuck a paddle under our right arm, roll to the left; when upside down, pull the orange ball on the front of the spray deck, kick free of the kayak and resurface — together.

"Sure, no problem," I lied while Bernadette counted — one, two, three and over we went. Upside down, I panicked. I was stuck in the kayak until I remembered to pull the orange ball. Fumbling frantically, I found the ball and yanked it. Out I jettisoned and my head popped above water, followed quickly by Bernadette's.

"I forgot to pull that ball," Bernadette whined through her noseplug.

"Me, too," I sputtered.

We had exited and survived. No small accomplishment for us, but the worst was yet to come. Now we had to get back into the kayak while in the water. Zwagerman showed the proper methods, but it looked difficult even for him, and I couldn't imagine how two natural-born klutzes were going to manage.

Under Zwagerman's supervision, we inflated a child's yellow swim-aid — a "floatie" — to put on the end of a paddle, then we stuck the other paddle end through the webbing on top of the kayak. Bernadette was in the back, so she went first. All she had to do was get her left leg on top of the floating paddle end, then heave herself onto the kayak, turn around, and slip her legs into the cockpit. My job was even simpler. I had to steady the kayak for her. Just in case we flubbed this procedure, Zwagerman and Rizzo stood by for a rescue.

Bernadette started out all right. She hoisted her leg onto the paddle and hooked her ankle around it for balance. So far so good, but then the rest of her wouldn't follow. Her bottom refused to get on top of the kayak. The more she struggled, the more I laughed and shook the kayak. Zwagerman couldn't give instructions because he laughed so hard he couldn't talk. On shore, David Smith clicked away with his camera and yelled, "I've got blackmail photos here."

In disgust, Bernadette gave a mighty lunge and hurled herself at the kayak. Her momentum carried her clear over the kayak into the water on the other side, which set off another round of laughter. She kept explaining the whistle around her neck was catching on something, but from my angle, gravity was her problem,

Frustrated, Bernadette finally lumbered aboard, but instead of sliding smoothly into the cockpit, she got her rump and knees stuck, which left her squatting on top of the kayak. She wiggled like Houdini until she finally slid into the cockpit and collapsed in relief.

"Let's see you do that," Bernadette challenged.

I hopped aboard the kayak as graceful as a ballerina. Well, maybe not quite a ballerina, but my performance was definitely classier than Bernadette's. Kayaking wasn't bad after all.

Back on shore for the night, we ate spaghetti and told tales around the campfire while a full moon laid a golden path across the lake. A great blue heron flapped slowly by, and a friendly fish splashed nearby as I gratefully crawled into my bedroll and fell asleep.

The next morning, I tried out the single kayak, and just as I suspected, it was much easier to handle. Bernadette's wiggling had been our problem all along. She probably didn't sit still in church, either. I decided to palm the tandem kayak off on another set of fools. I attempted to con Ron and Karen into trying it, but Ron said, "We don't do anything in tandem. That's why we've been married for 15 years. Do you want to be the cause of a divorce?" I could see how that could happen. But peer pressure prevailed, and they agreed to go out for five minutes. We all lined the shore like spectators at a prize fight.

To my disappointment, they did well. No bickering. I took Ron aside and asked his secret. "Keep your mouth shut and anticipate her moves," he whispered. Hmmm. Maybe that was the secret of working with Bernadette.

Fun time over, we repacked the kayaks and started for the marina. Zwagerman provided us with toys suitable for our intelligence. Mine was a vivid-yellow water gun. I loaded my gun and kept it handy in case I needed to shoot a mean-looking catfish or a low-flying duck. I took a few shots at Bernadette, just for target practice, which didn't help her mood any. Then I engaged in warfare with nearby kayaks. This further irritated Bernadette because she got hit by missed shots as she plowed along with her paddle.

While I paddled passably well, Bernadette's navigational skills hadn't improved. We still meandered around the lake, and the group had to wait patiently for us to catch up. The 1.5-mile trip to the marina felt like 10 miles to our already sore arm muscles.

After lunch, Bernadette tried maneuvering the single kayak and bragged, "This is a piece of cake." Then she tried to get out. One leg hit the water and the kayak tipped, sending her sprawling and screaming into the water. She contended it was a freak accident, but I knew better. When she tried to get back in, she fell again.

As I watched her wobble and weave her kayak toward our take-out point, I knew I'd been right all along. Bernadette was our entire problem. She just couldn't seem to get the hang of kayaking. It would help, though, if she would sit still.

Janet Webb Farnsworth lives in Snowflake, where Silver Creek doesn't hold enough water for kayaking, but she's ready to go again as long as Bernadette Heath is not the backseat driver.

Bernadette Heath of Star Valley says tandem kayaking is a good way to test any relationship — especially friendship. If you are still speaking to each other after the experience, the bond should last a lifetime.

to add to our INdiGNitY,

Zwagerman had tied a Winnie-the-Pooh float ring to the back of our kayak, where it bobbed ridiculously along, but was comfortingly close if we went overboard.

GEMSTONES

Here's a sample of the gemstone jokes we got from our readers:

As our anniversary approached, my wife dragged me to a jewelry store to window shop and said, "Diamonds are forever."

I said, "They'd have to be. It would take me that long to pay 'em off."

DAVID MEMBRILA, Tucson

What do you call an engagement ring without any clothes on?

A diamond in the buff.

KRIS OWEN, Eugene, OR

At an evening meeting of the Knoxville, Tennessee Gem and Mineral Society, a woman suddenly opened the door asking, "Anyone here have a blue Opel?"

No one had a blue opal.

"Well," she said, "whoever it is, you left your lights on."

ELIZABETH OAKBERG, Oak Ridge, TN

A cowboy walks into a Tucson bar wearing a ring with a huge diamond on it. The bartender says, "My, that's a big diamond. Is it real?"

"Well, if it ain't, I sure been done out of a buck fifty."

ALAN HERBERT, Austin, TX

My daughter said she wants to be a doctor when she grows up, so we thought she'd be interested in the medicine-man talk near our vacation lodge.

Sure enough, she was fascinated by the folkways and lore. When the medicine man held up a turquoise fetish, he pointed out the significance of the veins of goldlike color running through it.

"Yep, I know all about that," Ashley blurted out. "My mom has a bad case of very-close veins herself."

LARRY CHARLES, Peoria

GREAT VIEW

Recently a real estate agent showed a home to a couple who seemed eager to check out the property after learning the view from the living room was fantastic. But when the drapes were dramatically pulled back, the disappointed husband asked, "Where's the view? Those mountains must be blocking it."

MARK ANDERSON, Union City, MI

{early day arizona}

Office boy: "Please, sir. Me Gran'mudder's dead, an' I want de afternoon off."
Boss: "Johnny, do you know where little boys go who tell lies?"
Office boy: "Yes, sir. To de ballgame."

The Weekly Tribune (Tucson), JULY 17, 1909

IT'S Snow JOKE

by Vicky Snow

"Whose idea was it to schedule the thermal outerwear convention in Arizona THIS time of year, anyway?"

PERSPECTIVE

UNUSUAL

Desert plants, like cacti, develop pointy spines as protection from animals. It's also a way to get even with people who ignore the "Please don't pick the flowers" sign.

—Linda Perret

POSITION IS EVERYTHING

The frame around the rear license plate of an Arizona Department of Public Safety patrol car spotted in Show Low had the following message: "Smile . . . I could be behind you!"

KARL MORTON, Pinetop

EXPERT GUIDE

The elderly gentleman who guided us through our tour of a ghost town captivated us with his stories of the early days. As we left, I gave him a tip and complimented him on being such an excellent student of Arizona history.

"Shucks," he replied, "I didn't have to study it. I lived it!"

PHYLLIS BEVING, Casa Grande

ART CRITIC

The young art students from Holbrook were excited to tour the "El Greco to Picasso" exhibit at the Phoenix Art Museum. For months, they had been learning about color and composition. Prior to the field trip, their teacher taught them to identify artists by the painting style. They were pointing out works of famous artists they'd studied.

One second-grade artist walked up to an early Picasso painting of a nude woman standing in a tub of water. The child studied the composition and the blend of colors. "Not bad," she commented. "But in those days, people didn't know how to dress!"

JO RUSSELL, Taylor

CHILD'S PORTION

We stopped at a small cafe in Arizona a few years back, and my wife wanted the luncheon listed under the heading, "Child's Plate."

She asked the waitress, "Don't you think that when a person reaches my age and is in her second childhood, she should be allowed the child's plate?"

The waitress smiled and said, "I'm not supposed to, but I'll give it to you. And what would you like to drink with your meal?"

"Coffee," my wife answered.

"I'm sorry," the waitress replied. "You're too young for coffee."

THOMAS LAMANCE, Prewitt, NM

TRAVELER'S BRIEFING

When flying from Denver back to Phoenix, our pilot entertained us by describing various sights as we passed over them.

Upon flying near Meteor Crater, he commented, "This is quite a tourist destination in northern Arizona. Thousands of years ago, this huge meteor weighing several hundred thousand tons plummeted to Earth at an incredible speed, scattering debris for miles. That crater is now over a mile across and nearly 600 feet deep!"

Upon hearing this, a young fellow across the aisle from me exclaimed, "Gee whiz! It just missed the highway."

PAT EAGAN, Mesa

{reader's corner}

Small towns are as American as apple pie, but our town is so small it would only qualify as an apple tart.

This month's topic is **small towns.** Send us your small-town jokes, and we'll pay you $50 for each one we publish.

TO SUBMIT HUMOR: Send your jokes and humorous Arizona anecdotes to Humor, *Arizona Highways,* 2039 W. Lewis Ave., Phoenix, AZ 85009 or e-mail us at editor@arizonahighways.com. Please include your name, address and telephone number with each submission.

Road Trip Across America Sweetens the Return Home to Arizona

WE STAND IN THE CEMETERY outside Big Spring, Ohio, looking upon the resting place of four generations of Rosebrooks. My son, Stuart, and I had been to the church where family names were included within century-old stained-glass windows, and to the farm where the family had moved from Bedford County, Virginia, in 1830. Sold more than 70 years ago, it today bears the name Poverty Hill Farm — perhaps half in jest, perhaps all in earnest.

Earlier we visited a beautifully restored home in nearby Delaware, Ohio. My widowed grandmother built the home in 1907. For the next 30 years, she took in as boarders young women attending Ohio Wesleyan University, while putting her four children through college.

We had left Williamsburg, Virginia, the day before. Stuart had given up his position as research editor at *Arizona Highways* two years earlier to become editor of the alumni magazine for the College of William & Mary.

The time has come for his return journey to Arizona, where he has accepted a position as director of development for a private boarding school.

I am along for the ride. Both of us had begun driving across the country at young ages. My trips were in the days before interstates, his during the Interstate Age. Where possible, Stuart has chosen the old U.S. highways.

Jackson Browne sings "Running into the Sun" on the radio as we head west from Williamsburg.

At Miss Anne's Cafe in Mossy, West Virginia, young men take a break from driving gravel trucks, unable to completely wash the grime and dust from their arms and hands to eat barbecue sandwiches in front of a wall of photographs of local men and women who have served in the armed forces.

The Hamburger Inn in Delaware, Ohio, dates back to the early 1930s and stands in a downtown hurting because of a new regional shopping center on the outskirts of town. When a stranger asks if there is a fruit substitute for hash browns, the young waitress in a NASCAR T-shirt politely replies, "The only fruit here is in the strawberry pie."

The Derby Cafe, Arapahoe, Nebraska, Stuart and I agree, is home to the best cinnamon buns anywhere, freshly baked every morning. A waitress produces a 1952 menu: No one can figure out why a hamburger cost 24 cents and the french fries were 35 cents.

There is the land and the rivers. We marvel at the width of the Mississippi River at Burlington, Iowa, and the aging bridge over the Missouri, coming into Plattsmouth, Nebraska, on U.S. Route 34. From the Kanawha River Valley of West Virginia, across Ohio, into Indiana, Illinois, crossing Iowa into Nebraska; small towns, some fading with age, yet homes always neatly kept, men and women riding small tractors, mowing lawns. American flags on homes and decorating every block of a small-town street.

Corn, and corn, and more corn — deep, rich and green in a land in need of rain, as far as the eye can see, broken up in Nebraska by enormous grain elevators in nearly every small town. It is a festive Saturday morning in Holdridge, Nebraska, honoring Swedish-American Days, and a chance to enter a regional radio contest to win a restored 1951 Dodge pickup truck.

Heading West, the corn gives way to rolling hills and ranches, small towns where baseball diamonds and rodeo arenas stand side by side.

When Stuart accidentally locks the keys in the car at a rest stop outside of McCook, Nebraska, a young stranger gives me a ride into town for help. On his dashboard sits a card that says he belongs to a group with the name "Good Samaritans." Another young man gives me a ride back to the car and tells us he has lived in McCook (population 8,100) all his life. "I wouldn't live anywhere else but here," he says.

There is not enough rain. We see enormous, rotating mechanical sprinkler systems called "pivots" watering the corn. Where there is no rain, there is fire. Stuart's homecoming quickly becomes a new reality.

Two fires rage in Colorado, two in New Mexico, and an out-of-control Rodeo-Chediski wildfire devastates more than 460,000 acres in east-central Arizona.

We do not see the sun between Denver and Winslow, only smoke.

My son had taken one road to revisit the Virginia and Ohio roots of his family. But I knew the road he always wanted to take was the way we have now traveled, the road home to Arizona — in truth, the road home to his heart. AH

Monument Valley's Hoodoos and Monoliths Mesmerize Visitors

THANKS TO SMUDGED mental images recalled from old Western movies, and to my recent fascination with the saga of the Navajo god Monster Slayer, I have always felt drawn to the stark vistas of Monument Valley. I finally decided to make that long trek to the place the Navajos call "The Treeless Area Amid the Rocks."

[ABOVE] Evidence of recent rains, wandbloom penstemon spreads a flowering carpet before Rain God Mesa just past the fork in the road in Monument Valley on the Navajo Indian Reservation. PETER ENSENBERGER

My journey began 24 miles north of U.S. Route 160 on U.S. Route 163 where I turned east on Indian Route 42 into Monument Valley. Three and a half miles down a packed gravel road, I arrived at the Navajo Tribal Park Visitor Center and the beginning of the 14-mile road through the park.

Outside the windows of my little white vehicle, a surreal landscape unfolded in front of me and I found myself thinking of Pulitzer Prize-winner N. Scott Momaday's writings on Monument Valley:

"You see the monoliths that stand away in space, and you imagine that you have come upon eternity. They do not appear to exist in time. You think: I see that time comes to an end on this side of the rock, and on the other side there is nothing forever."

For the first time in my life, I could see forever.

The bumpy drive from Route 163 is the only off-highway travel permitted without an Indian guide, and visitors on this self-guided tour are restricted to the road. Numerous tour companies offer Indian-guided trips of varying length into restricted areas of the park.

The tribe considers the entire valley to be a giant hogan, with the butte near Goulding's Trading Post marking the fireplace, and the doorposts at Sentinel and Gray Whiskers mesas. After I entered this sacred hogan, I unfolded my map and headed down Valley Drive, which would lead me to a one-way loop road along the park's natural wonders.

As I drove, I cast a glance backward to the looming 800-foot specter of Eagle Mesa where spirits flee after death, according to Navajo legends, and their cries carry on the wind.

One mile from the visitors center, I came to the first scenic point, which frames the famous images of East and West Mitten buttes and Merrick Butte clustered to the north. In Navajo tradition, some stories declare that these sandstone monoliths, reaching up 1,000 feet above the valley floor, are all that remain of the giant killed along the path taken by Monster Slayer across Navajoland. Other stories say these two dormant hands stand to remind Navajos that the gods will return and rule this world once more.

Merrick Butte is a reminder of a different sort. This butte to the north and Mitchell Mesa to the south of the road are named for two silver prospectors who dared to search for riches on these sacred grounds in December 1879 and, as a result, met their demise near the monuments that now bear their names.

Following the road east, at a bit less than 3 miles, I paused to gaze south at the pinnacles known as the Three Sisters, holy people seemingly frozen in form. A little farther on Valley Drive, at the 3.5-mile mark, I stopped for a while to take in the view at the point named after John Ford, the movie director whose love for the elemental landscape was mirrored in many of his famous Westerns, including *Stagecoach* and *My Darling Clementine*.

Dust kicked up as I continued slowly along the way. At several points, I wanted to stop and wander among the majestic sentinels, but the Navajos strictly forbid visitors from getting out

[BELOW] Rippled sand seems to emanate from the frozen-in-rock ceremonial dancers of Yei Bichei (left) and the vertical upthrust of Totem Pole. DAVID MUENCH

of their cars at any point other than the 11 scenic viewpoints along the park road and, even there, signs warn against leaving the parking areas.

Valley Drive forks at the 4-mile mark, near Camel Butte, where the loop drive begins and ends. Signs direct returning traffic north toward the visitors center, and traffic beginning the loop is directed south where the road skirts Rain God Mesa.

On that afternoon, a few wisps of white clouds swept across a cerulean sky, but rain seemed as distant as a long-forgotten dream. Rain God Mesa, one of the monuments with seeps at their bases, has four springs — each facing one of the four cardinal directions. Traditionally, medicine men collect the water for sacred ceremonies.

As the road curved east, I found myself hemmed in between Rain God Mesa and Thunderbird Mesa, legendary home of thunder and lightning. Their strength made me shiver as I stood in the sunshine, contemplating the forces that created such beauty. Desert varnish left dark red stains on the rock face, the color of which shifted and glimmered in sunlight and shadow.

This desert highland, at 5,564 feet elevation, was once a lowland basin. Sediment eroded from the early Rocky Mountains deposited across the basin and cemented through millions of years, until it was uplifted from pressure beneath the Earth's surface, like the rest of the Colorado Plateau.

For the last 50 million years, the forces of wind and water have eroded the layers of sediment on the plateau and sculpted the massive monuments grain by grain.

Hogans nestle along the road and farther out into the valley, where the Navajo people live and play as they have since they first came to this region in the late 15th century.

Since that time, the Navajos were only parted from this land's stark beauty by their forced relocation to New Mexico between 1864 and 1868. Ninety years later, the Navajo Tribal Council designated the 29,816-acre Monument Valley Navajo Tribal Park to preserve its

[ABOVE] Sunset light at Artist's Point deepens the reds of sandstone formations and the soil grasped by a dead tree's roots. [RIGHT] Icons of Monument Valley, the Mittens stand silhouetted below smoldering clouds at sunrise. BOTH BY PAUL GILL [OPPOSITE PAGE] Massive mounds of cumulus clouds hover above Monument Valley's jagged monoliths in this view from Artist's Point. PETER ENSENBERGER

singular beauty and the lifestyle of the Navajos residing within its boundaries.

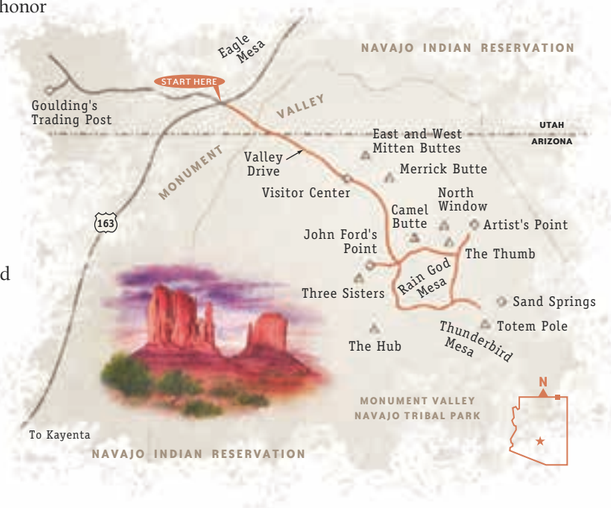
Tempted to preserve my memory of the people and their homes, I fingered my camera, but signs at the private residences curbed my impulse. Instead, I would take home pictures of the incredible works of nature that surround them.

At mile 6, I stopped to gaze at the glory of the Yei Bichei formation and Totem Pole, its northernmost figure — slender sandstone spires resembling a procession of Yé'ii dancers participating in a ceremony.

I have heard a variety of myths associated with Totem Pole. It is said to be the home of the mirage people, who bring wealth and blessings to those who honor them with offerings, or it is a prayer stick housing spirits who were offended by rock climbers and so withhold the rain.

The rutted road isn't recommended for recreational or low-clearance vehicles, but my modest car managed the bumps with no problems. To drive while watching the shifting scenery took some doing, but time slows down here and creeping along suited me just fine. I stopped at all of the other scenic viewpoints along the way: Sand Springs, Artist's Point, North Window, the Thumb — each offering a different perspective of the sweeping valley and its storied sculptures.

At mile 14, back at the visitors center after about two hours, I parked the car, perused the Navajo arts and crafts in the gift shop and then wandered out to the lookout behind the building to soak up the blaze of color, the fierceness of the sky and the mythic memory frozen in a timeless valley. I stood there, silent and solemn, watching the dance of light on the stone spirits and hearing their faint songs on the breeze. AH



WARNING: Back road travel can be hazardous if you are not prepared for the unexpected. Whether traveling in the desert or in the high country, be aware of weather and road conditions. Make sure you and your vehicle are in top shape and you have a full tank of gas. Carry plenty of water. Don't travel alone, and let someone at home know where you are going and when you plan to return. Odometer readings in the story may vary by vehicle.

TRAVEL ADVISORY: The Navajo Nation observes daylight-saving time from the first Sunday in April to the last Sunday in October. The remainder of Arizona does not observe DST, so the Navajo Nation is one hour ahead of the rest of Arizona during that period.

ADDITIONAL INFORMATION: Monument Valley Navajo Tribal Park, (435) 727-5870; www.navajonationparks.org.

Walnut Canyon Dwellings Reveal the Hardscrabble Sinagua Indian Life

[BELOW] Built from 1939 to 1941 by the Civilian Conservation Corps — which also constructed 240 stone steps and the Island Trail to which they lead — the visitors center at Walnut Canyon National Monument perches atop a limestone plateau 400 feet above the canyon floor 10 miles east of Flagstaff. BOB AND SUZANNE CLEMENZ

FROM A.D. 1150 TO 1250, about 200 Sinagua Indians lived in a canyon 10 piney miles east of Flagstaff. They farmed, hunted and traded with settlements from California to the Plains and into Mexico. Instead of building their homes above the canyon, or near the creek flowing through it, they moved into weathered limestone alcoves halfway down the steep 400-foot mountainsides. With stone "roofs" already there, they added rock walls with low doorways and smoke holes.

Today those cliff dwellings attract 150,000 people a year to Walnut Canyon National Monument. Visitors can view the ruins from the rim and up close. The easiest footpath, the level .7-mile Rim Trail, offers a magnificent overlook of the canyon. Two ranger-led hikes, two to three hours each, go down into a side canyon to a historic ranger's cabin and through ancient farmlands.

Then there's the popular and infamous Island Trail, with its 240 steps down to — and back up from — a string of ruins. Fortunately, it comes with a railing and benches. The .9-mile trail passes two dozen rooms, some of which hikers can enter.

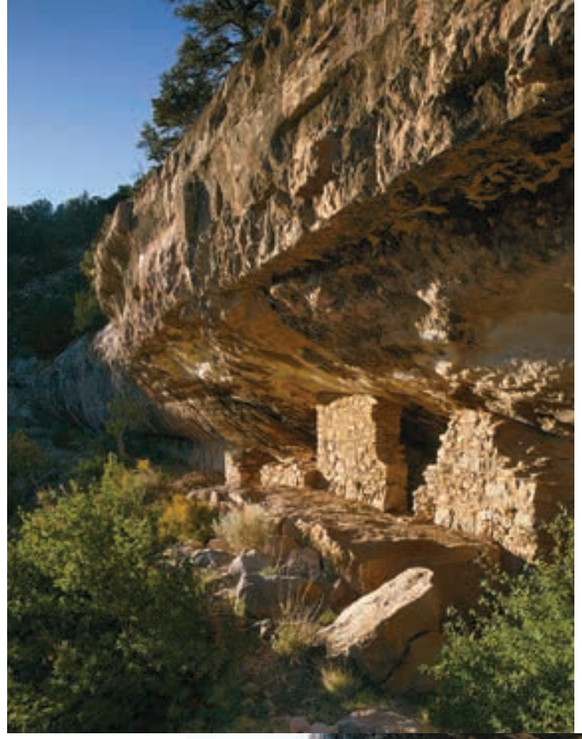
"It's a nice walk," said Karl-Heinz Maier, a fit-looking German tourist who had just climbed back up the steps.

"It's . . . easy . . . going . . . down. Hard . . . coming . . . up," gasped a returning red-faced woman too out of breath to say more.

The Island Trail attracts all ages, but some overestimate their ability to handle the 7,000-foot elevation and the exertion. "We have two to three 'carry-outs' a year," Chief Ranger Kim Watson said, referring to hikers hauled back up on litters.

Why did the Sinagua people build on the mountainsides? According to Park Service archaeologist Ian Hough, "They probably didn't want to waste the tillable soil up top, which they needed to grow corn, beans and squash." Plus, added Watson, they could go up to the rim and down to the creek easily by following natural geological breaks and game trails. "It's not magic. It's logical," he said.

On the way down the Island Trail — not just coming back up — visitors should rest on a bench or flat-topped boulder, watching for wildlife and imagining what living there was like. My first impression was how noise seemed to carry forever — laughing hikers downtrail, the squawking of turkey vultures soaring on the thermal currents and the chirping of unseen birds in the thick trees.



[LEFT] Protected by the rocky overhangs that serve as roofs and stabilized by the application of fresh mortar, many of the canyon's original Sinagua Indian stone structures survive despite the ravages of time and vandalism. GEORGE H.H. HUEY

[BELOW] Named for the "island" of land created by Walnut Creek encircling three sides of the plateau it traverses, the Island Trail affords visitors opportunities to peer inside some of the ancient ruins. TOM BEAN

Because of how the sun hits different parts of the canyon, its microclimates mimic a trek from upper Sonoran cacti in warmer locations to conifers and Douglas firs in cooler ones. Box elders and Arizona black walnut trees, the canyon and creek's namesake, grow in the creekbed, which fills with water only after rains.

Sitting on a bench, I thought about the Sinagua. Averaging about 5 feet 6 inches tall, they wore loincloths and fringed skirts. They picked vegetables; chased deer, bighorn sheep and rabbits; and made mats and sandals out of yucca fibers. They built dams for irrigation and terraced land to save precious soil. They used their dwellings for cooking and sleeping.

Peering into those empty rooms, I saw smoke-blackened walls and ceilings, and — I think — handprints on the clay-plastered walls.

By the time the site became a national monument in 1915, souvenir hunters had plundered the artifacts. Those remaining ended up in various archives, and a few can be seen in the visitors center, including metates and manos, stone tools and the simple brown-and-red pottery the Sinagua made. Exhibits reflect their lifestyle and trading expertise. The Sinagua swapped baskets, piñon nuts, sunflower seeds and obsidian for turquoise, rock salt, copper bells, pipes and figurines.

Artifacts still pop up, though. "Recently, while mapping the rooms, I moved a rock and found a turquoise pendant on a yucca fiber," said Hough.

Two turns in the trail reveal panoramic views of three levels of ruins. Another stunning vista summarizes part of the Sinagua's story. The San Francisco Peaks, where they lived in pithouses before Walnut Canyon, soar to the northwest. Anderson Mesa, their home after Walnut Canyon, stands to the northeast.

At one viewpoint, I wondered why the Sinagua left this pretty canyon.

Hough said that perhaps overpopulation or climate changes caused the move. The Hopi, who consider the Sinagua their ancestors, believe that moving settlements to better locations was not unusual, or mysterious, for the Sinagua.

Climbing leisurely back up the Island Trail, I passed a hiker hurrying down, counting the steps. He'd just hit No. 40. "This is easy," he said.

"Just wait," I told him, laughing. "You may be counting benches and flat-topped boulders on the way back up." AH

LOCATION: 10 miles east of Flagstaff.
GETTING THERE: Take Exit 204 on Interstate 40; then follow the entrance road.
HOURS: Open daily except Christmas Day. Times vary seasonally.
ADMISSION: $5 adults; free under age 17.
TRAVEL ADVISORY: Call about hours and ranger hikes. Stay on the trails. Be respectful of the ruins. All plants, animals and artifacts are protected by federal law.
ADDITIONAL INFORMATION: (928) 526-3367.

Climb to Strawberry Crater Navigates a Volcano's Fiery Past

PEACEFUL STRAWBERRY CRATER, located in the wilderness just north of Flagstaff in the San Francisco Volcanic Field, doesn't let on right away about its tumultuous past. Serene and stark, the crater and its terrain lie dark and silent. Only the telltale crunch of cinders under foot gives any hint of the devastation from its volcanic blast.

[ABOVE] Rabbitbrush, whose yellow flowers yield dye used by Navajo Indians, flourishes in the volcanic cinder fields northeast of Flagstaff.
LES DAVID MANEVITZ
[OPPOSITE PAGE] Steeped in shadow, a lava-rock overhang on the rim of Strawberry Crater displays its sharp contours against a south-facing view of the 10,141-acre Strawberry Crater Wilderness.
STEVE BRUNO

The San Francisco Volcanic Field harbors more than 600 volcanoes. Geologists have debated its origin, but popular theory says the field lies over a hot spot below the Earth's crust where a stationary chamber roils with a constant supply of magma, or molten rock.

Volcanoes help cool the Earth by creating an escape hatch for releasing thermal energy through eruptions. When pressure builds to the point that magma must escape, the magma erupts through the Earth's surface in the form of a volcano.

Volcano expert Wendell Duffield says the San Francisco Volcanic Field will erupt again, but probably not in our lifetime. For now, the area's volcanic assemblage remains peaceful.

Grayed juniper limbs strewn across the black cinder landscape set a moody scene for this mile-and-a-half-loop hike. The Forest Service has lined the route between the parking area and loop junction loosely with the tree limbs to keep hikers on the path. The right fork at the junction heads directly to Strawberry Crater and starts a comfortable climb across the cinder cone's south face.

Midway across, the trail passes by the tail end of the lava flow that streamed from the cone in Medieval times. The wall of rock, long and brittle, has the look of a coral reef. If hikers examine the ruddy lava, they can see scrape marks formed as it oozed through cracks in the cooler surface. They also may notice how the volcano's boiling rock cooled into solid bubbles.

After a couple of switchbacks up to a saddle, the path parts from the lava flow and focuses on other examples of volcanism in the San Francisco Lava Field. On the descent down the east face, a pretty panorama shows how the northern edge of the lava field's cinder-coned landscape gets an abrupt end when it meets the terra cotta-colored Painted Desert.

A short zigzag brings hikers to the base of Strawberry Crater where the trail levels off, contours around the cone and looks upon more volcanic vistas to the north. When Humphreys Peak, located in the center of the lava field, comes into view, the trail drops back onto the floor of cinders to close the loop and head back to the trailhead.

By trail's end, hikers will have experienced several different aspects of the San Francisco Lava Field. They should enjoy the field's present aesthetics while they can. The scene may change in a few hundred years. AH

GETTING THERE: From Flagstaff, take U.S. Route 89 about 15 miles north to Forest Service Road 546 (just past Milepost 434), and turn east (right); drive 3.5 miles to a fork and continue straight onto Forest Service Road 779; drive about 2 miles to the parking area.
TRAVEL ADVISORY: This trail is located in the Strawberry Crater Wilderness, where no mechanized vehicles, including mountain bikes, are allowed.
ADDITIONAL INFORMATION: Coconino National Forest, Peaks Ranger District, (928) 526-0866; www.fs.fed.us/r3/coconino/recreation/peaks/strawberry-crater-wild.shtml.

Before you go on this hike, visit our Web site at arizonahighways.com for other things to do and places to see in the area.